

3.2.1 *GS* Series II 3.2.1 Series II

DVD HOME ENTERTAINMENT SYSTEMS

Owner's Guide





A WARNING: To reduce the risk of fire or electric shock, do not expose the system to rain or moisture.



WARNING: This apparatus shall not be exposed to dripping or splashing, and objects filled with liquids, such as vases, shall not be placed on the apparatus. As with any electronic products, use care not to spill liquids in any part of the system. Liquids can cause a failure and/or a fire hazard.





The CAUTION marks shown here are located on the bottom of your 3•2•1 Series II home entertainment system media center and the rear panel of the Acoustimass module:



The lightning flash with arrowhead symbol, within an equilateral triangle, alerts the user to the presence of uninsulated dangerous voltage within the system enclosure that may be of sufficient magnitude to constitute a risk of electric shock.



The exclamation point within an equilateral triangle alerts the user to the presence of important operating and maintenance instructions in this owner's guide.



A CAUTION: To prevent electric shock, match wide blade of plug to wide slot, insert fully.



A CAUTION: No naked flame sources, such as lighted candles, should be placed on the apparatus.

Class 1 laser product

The DVD player contained within the media center is classified as a CLASS 1 LASER PRODUCT according to EN60825-1:1994 + A11. The CLASS 1 LASER PRODUCT label is located on the bottom of the media center.





A CAUTION: Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure. The DVD player should not be adjusted or repaired by anyone except properly qualified service personnel.

Class B emissions limits

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.



Batteries

Please dispose of used batteries properly, following any local regulations. Do not incinerate.

Additional safety information

See the additional instructions on the Important Safety Information sheet enclosed in the shipping carton.

Please read this owner's guide

Please take the time to follow this owner's guide carefully. It will help you set up and operate your system properly, and enjoy all of its advanced features. Save your owner's guide for future reference.

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Before you begin

Thank you for purchasing the Bose® 3•2•1 Series II or 3•2•1 GS Series II DVD home entertainment system, which offers superb sound, elegance, and simplicity in an advanced home audio setup. Using Bose proprietary signal processing technology, the 3•2•1 Series II systems provide improved spaciousness from stereo recordings, and bold movie effects from surround-encoded materials. Yet its few parts require little effort to set up, so you can enjoy your new system's performance right away.

Your system includes:

- Integrated AM/FM tuner and DVD/CD player in a small console
- Small, easy-to-place shelf speakers and an attractive hideaway Acoustimass[®] module
- Easy-to-use infrared remote control
- Console input jacks for connecting other audio devices (such as a VCR, cable or satellite box)

Selecting compatible discs

The DVD/CD player built into the 3•2•1 series II media center can play the following types of discs identified by their corresponding logos:

• Video DVDs

• Audio CDs

• Video CDs VIDEO CI

• CD-R and CD-R/Ws

• DVD-R, DVD+R

MP3 CDs

Check for region code compatibility

For a DVD player and DVD disc to be compatible, their region code numbers must match. These numbers are allocated according to where the player and disc are sold. The 3•2•1 Series II DVD home entertainment systems have a region code which must also match the DVD discs.

Check the region code number on the carton of the 3•2•1 Series II DVD home entertainment system or on the bottom of the media center that comes in the carton. Then be sure to choose only DVD discs that show the same region number on the disc label or front cover. For example, a Region 1 DVD disc should display the following mark:

MP3 compatibility

To be compatible with the 3•2•1 Series II or 3•2•1 GS Series II home entertainment systems, MP3s must meet the following criteria:

- All tracks must be burned in a single closed session
- The disc format must be ISO9660
- Each file must have a ".mp3" extension and have no other periods in the filename

Glossary of terms

Aspect Ratio – The shape of the rectangular picture in a TV set. It is the width of the picture relative to the height. Our standard TV picture, in terminology used by that industry, is 4 units wide by 3 units high, or 4:3 (read as 4 by 3) in aspect ratio. There are currently two standard TV aspect ratios, 4:3 and 16:9.

Chapter - In DVD-Video, a division of a title. Technically called a part of title (PTT).

Component Video – A video signal split into three parts: luminance and two color signals (marked as YPbPr). It provides the highest resolution video, but cannot be processed by all television sets.

Composite Video – A single video signal that contains luminance, color, and synchronization information. NTSC and PAL are examples of composite video systems.

Dolby Laboratories — Developer of a perceptual coding system for audio.

Dolby Digital – a type of multi-channel surround sound format used on discs.

DOLBY

DIGITAL - the logo representing Dolby® Digital.

DTS - a type of multi-channel surround sound format used on discs.



- the logo representing DTS.

DVD – An acronym that is most commonly known to mean Digital Video Disc or Digital Versatile Disc. The audio/video/data storage system based on 12- and 8-cm optical discs.

DVD Video – A standard for storing and reproducing audio and video on DVD-ROM discs, based on MPEG video, Dolby Digital and MPEG audio, and other proprietary data formats.

IR – An acronym for infrared. Pertains to the type of remote that sends/receives commands on an infrared light beam.

Letterbox – The projected aspect ratio of feature films is often 16:9 rather than the 4:3 aspect ratio of most TVs. Therefore, it is becoming common practice to transfer films to video with black borders at the top and bottom of the picture. The film picture becomes a "letterbox" within the video.

MPEG – a type of data compression used for audio or video storage on disc.

MP3 – MPEG-1 Layer III audio. This is a compressed audio format that allows you to record many hours of music on a single CD.

NTSC – An acronym for National Television System Committee. The organization that developed both the American Black & White and Color television systems.

PAL – An acronym for Phase Alternate Line. A television format used extensively in Western Europe.

PCM – An uncompressed, digitally coded representation of an analog signal. This is the form of the digital audio signal used for both CD and laserdisc. It is a serial data stream that is coded for transmission or recording. PCM is also used for many other types of serial data communications.

S-video – A video interface standard that carries separate luminance and chrominance signals, usually on a four-pin mini-DIN connector. Also called Y/C. The quality of S-video is significantly better than composite video since it does not require a comb filter to separate the signals. Most high-end televisions have S-video inputs.

Title – numbered elements of the DVD contents, which may include more than the movie alone.

Track – Individual selections recorded on an audio tape or disc.

Limited warranty

The 3•2•1 Series II and 3•2•1 GS Series II home entertainment systems are covered by a limited transferable warranty. Details of the limited warranty are provided on the product registration card that came with your system. Please fill out the information section on the card and mail it to Bose. Failure to do so will not affect your limited warranty rights.

Serial numbers are located on the bottom of the media center and the rear of the

For your records

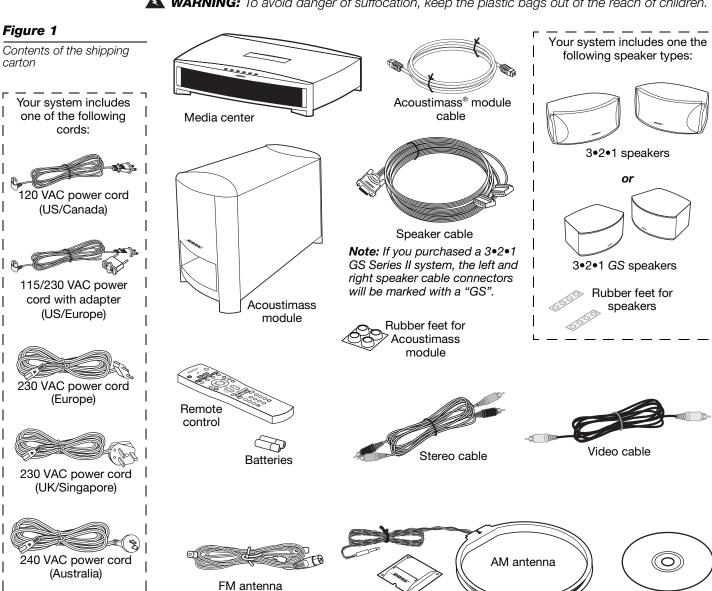
Acoustim Customer		have your serial number r	eady before contacting Bose®		
Model:	3•2•1 Series II □	3•2•1 GS Series II □	Check one		
Media ce	nter serial number:				
Acoustim	ass module serial nur	mber:			
Dealer na	me:				
Dealer ph	hone: Purchase date:				
We sugge	st you keep your sales	receipt and product regist	ration together with this owner's guide.		

Unpacking

Carefully unpack your system. Save all packing materials, which provide the safest way to transport your system. Check to be sure your system includes the parts shown in Figure 1.

If any part of the system appears damaged, do not attempt to use it. Notify Bose or your authorized Bose® dealer immediately. For Bose contact information, refer to the address sheet included in the carton.

WARNING: To avoid danger of suffocation, keep the plastic bags out of the reach of children.



P Note: Now is a good time to find the serial numbers on the bottom of the media center and Acoustimass module. Copy these numbers onto your product registration card and in the space provided on page 7.

Antenna stand

Setup and

demo disc

Selecting locations for your 3•2•1 Series II system components

Use the following guidelines and Figure 2 to choose locations and positions for the components of your 3•2•1 home entertainment system.

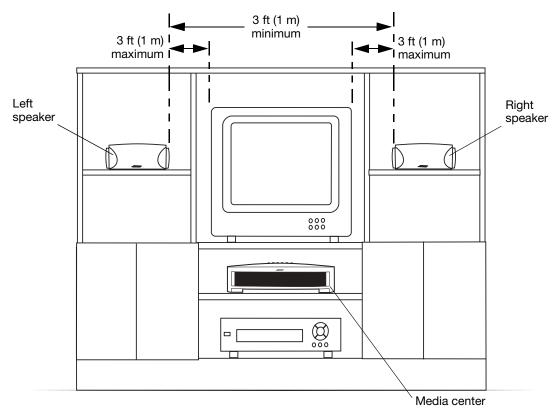
Note: While these guidelines are offered to help provide great system performance, you may find other placement choices that are more convenient and provide the sound you enjoy.

Placing the media center

A CAUTION: Do not block any ventilation openings. For reliable operation of the product and to protect it from overheating, put the product in a position and location that will not interfere with its proper ventilation. For example, do not place the product on a bed, sofa, or similar surface that may block the ventilation openings. Do not put it in a built-in system, such as a bookcase or cabinet that may keep air from flowing through its ventilation openings.

- Place the media center where nothing obstructs opening the disc tray on its front panel.
- Make sure the media center will be placed close enough to the Acoustimass[®] module and the speakers so that all the cables will reach.
- Make sure the media center will be placed close enough to additional source devices (TV. VCR or cable box) so that all the cables will reach.
- $lap{f Note:}$ Make sure that the front of the media center is unobstructed so that it may receive IR (infrared) commands from the remote control.

Figure 2 Sample media center and speaker placement



 $lap{1}{
m f Note:}$ The speakers are magnetically shielded to prevent interference with the TV screen.

Placing the speakers

Choosing a good location for the speakers will allow you to experience the audio surround effects that your 3•2•1 home entertainment system is designed to deliver.

- Place the two speakers either on top of the TV or at equal distance from the left and right of the TV screen (Figure 2). Keep both speakers at approximately the same height.
- Place each speaker within 3 feet (1 meter) of the edge of the TV screen. Placing the speakers more than 3 feet away from the TV can cause the sound to become separated from the picture.
- If you are using a bookshelf or a home entertainment unit, place each speaker at the **front edge** of its shelf. Positioning the speakers too far back in an enclosed space can change the overall quality of sound and alter the movie sound effects.
- Place the speakers at least **3 feet (1 meter) apart from each other** to optimize the surround sound experience.

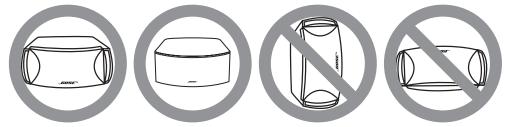
CAUTION: Choose a stable and level surface for both speakers. Vibration can cause the speakers to move, particularly on smooth surfaces like marble, glass, or highly polished wood. If you are placing the speakers on a flat surface, be sure to attach the smaller of the two sets of supplied rubber feet to the bottom surface. You may obtain additional rubber feet (part number 178321) from Bose[®] Customer Service. To contact Bose, refer to the list of offices included in the product carton.

Note: The speakers can be mounted on Bose brackets, table stands, or floor stands. For ordering information, refer to "Accessories" on page 53. Additional or longer cables may also be ordered.

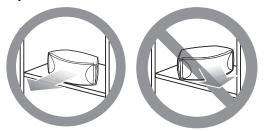
Figure 3

Recommended speaker placement

Place the speakers only on their bottom surfaces, with the Bose logo right-side up.



 Aim the speakers straight ahead toward the listening area. Do not place the speakers at an angle. Angling one or both speakers into or away from the listening area significantly alters system performance.

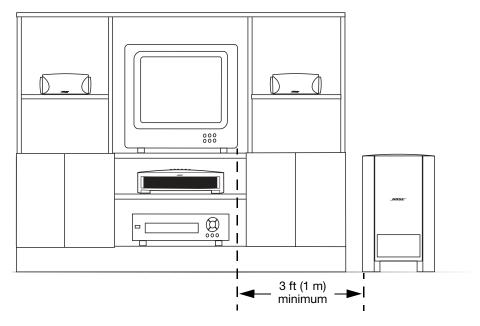


Placing the Acoustimass® module

- Place the Acoustimass® module within reach of the cable from the music center and an AC (mains) power outlet.
- Place the module at the same end of the room as the TV and the speakers (Figure 4).
- Keep the module at least 3 feet (1 meter) away from the TV to prevent the module from interfering with the TV screen.

Figure 4

Recommended Acoustimass module placement





- Attach the medium-sized rubber feet to the bottom of each foot on the module. The rubber feet provide increased stability and protection from scratches.
- Choose a convenient location such as under a table, behind a sofa or chair, or behind drapes, but do not block the port opening.
- Aim the port of the module into the room or along the wall. This prevents a blocked port or over-powering bass.
- Stand the Acoustimass module on its feet. Do not lay it on its side or stand it on either end (Figure 5).

Figure 5

Recommended orientation of the module



A CAUTION: Do not block the openings on the back of the module, which provide ventilation for the built-in circuitry.

CAUTION: The Acoustimass module generates a magnetic field. Although this is not an immediate risk to your video tapes, audio tapes, and other magnetic media, you should not store any of these items directly on or near the module.

Making system connections

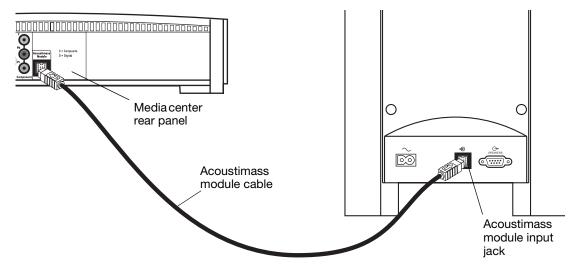
- **CAUTION:** Do not plug the Acoustimass® module into an AC power (mains) outlet until all the components are connected.
 - Note: If additional audio cables or longer cables are needed to make these connections, contact Bose Customer Service. Refer to the list of offices included in the product carton.

Connecting the Acoustimass module to the media center

Note: The jacks for the Acoustimass module cable are keyed so that the cable connectors only plug in one way. Make sure that the arrow on the connector body faces up when plugging in the cable.

Figure 6

Acoustimass module-tomedia center connection

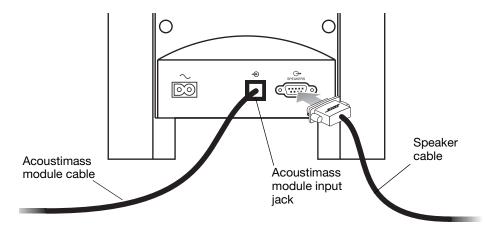


Connecting the speakers to the Acoustimass module

1. Insert the single-plug end of the speaker cable into the **SPEAKERS** jack on the rear panel of the Acoustimass module (Figure 7). Tighten both screws on the plug.

Figure 7

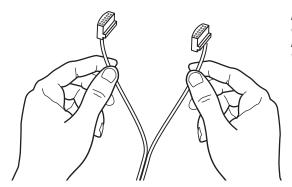
Speaker cable-to-Acoustimass module connection



2. At the other end of the speaker cable, separate the left and right speaker cords as much as necessary to reach each speaker (Figure 8).

Figure 8

Separating left and right speaker cords

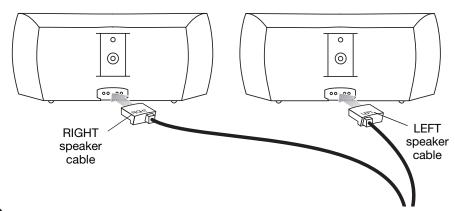


Note: If you purchased a 3•2•1 GS Series II system, the left and right speaker cable connectors will be marked with a "GS".

3. Plug the **LEFT** speaker cable into the rear jack of the left speaker (Figure 9). Plug the **RIGHT** speaker cable into the rear jack on the right speaker.

Figure 9

Left and right speaker connections

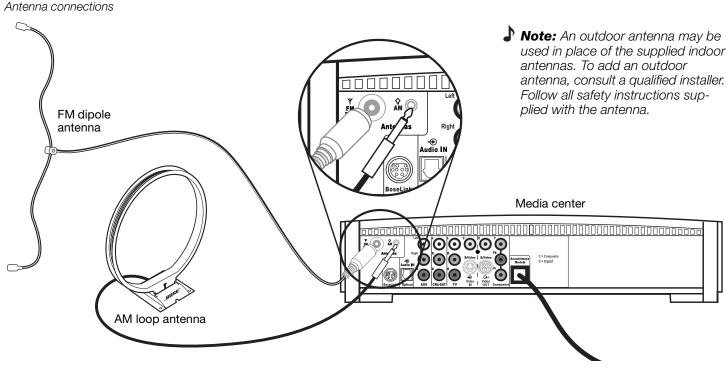


Note: Make sure cable connectors are fully inserted and seated firmly in the speaker jacks.

Connecting the supplied antennas

The rear panel of the media center provides jacks for the AM and FM antennas included with your system (Figure 10). Unwind the wires for each antenna to provide the best reception.

Figure 10



FM antenna

Plug the FM antenna into the **FM** jack on the media center rear panel. Spread out the antenna arms and move them around to establish optimum FM reception. Extend the antenna as far from the media center and other equipment as possible.

AM antenna

Plug the AM loop antenna into the **AM** jack on the media center rear panel. Place the antenna loop at least 20 inches (50 centimeters) away from the media center and at least 4 feet (1.2 meters) away from the Acoustimass® module. Experiment with positioning the loop for optimum AM reception. Follow the instructions enclosed with the AM loop antenna to stand it on the supplied base, or mount it to a wall.

Connecting cable FM radio

Some cable TV providers make FM radio signals available through the cable service to your home. This connection is made to the external FM jack on the back panel of the media center. To connect to this service, contact your cable TV provider for assistance.

Note: Make sure that the cable radio installation includes a TV/FM splitter so that only the FM radio band, not the cable TV band, is received by the media center. If necessary, contact your cable company.

Connecting your TV to the media center

Note: If you will be using the 3•2•1 system with both a TV and a VCR, skip this section and go to "Connecting your TV and VCR to the media center" on page 16.

Making audio connections

- Note: If your TV does not have audio output jacks, see "If your TV does not have audio output jacks" on page 17. Otherwise, continue.
 - Connect one end of the supplied stereo cable to the TV Audio IN jacks on the rear panel
 of the media center (Figure 11). Insert the white RCA plug into the TV white L jack. Insert
 the red RCA plug into the TV red R jack.
 - Connect the other end of the stereo cable to the audio output jacks on your TV. Insert the white RCA plug into the white AUDIO OUT L jack. Insert the red RCA plug into the red AUDIO OUT R jack.

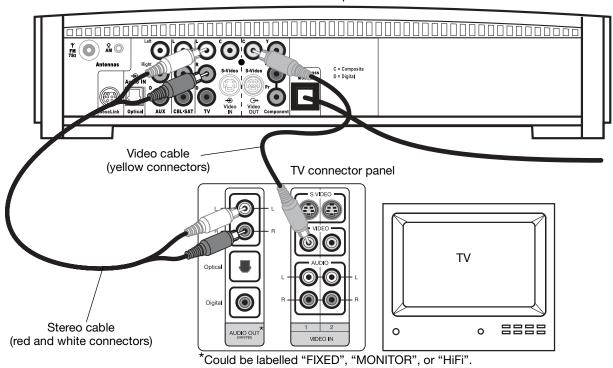
Making composite video connections

- Note: Some older TVs with standard TV cable connectors do not have a composite video or an S-video input. Such TVs are not compatible with any DVD players and require use of an RF modulator for this connection. RF modulators are available at your local electronics store.
 - 1. Insert one end of the supplied video cable (yellow) to the **Video OUT C** (composite) jack on the back of the media center (Figure 11).
 - 2. Insert the other end of the video cable into one of the video input jacks on your TV.

Figure 11
TV (composite video)-to-media center connections

Remember the name of the TV video input you plugged the video cable into (for example: Video 1, Input 1, or Aux). Later, you will need to select the corresponding video input on your TV in order to view the 3•2•1 system video output.

Media center rear panel



Connecting your TV and VCR to the media center

Note: There are two options for connecting your TV and VCR to the media center. Before you proceed, you must determine if your TV has audio output jacks. Consult your TV owner's guide if you need assistance.

If your TV has audio output jacks

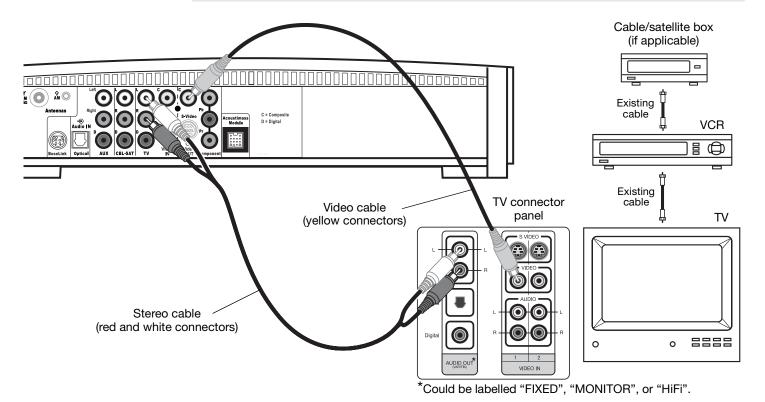
If your TV has audio output jacks, you can directly route the TV audio to the 3•2•1 home entertainment system (Figure 12).

- Connect one end of the supplied stereo cable to the TV Audio IN jacks on the rear panel
 of the media center. Insert the white RCA plug into the TV white L jack. Insert the red
 RCA plug into the TV red R jack.
- Connect the other end of the stereo cable to the audio output jacks on your TV. Insert the
 white RCA plug into the white AUDIO OUT L jack. Insert the red RCA plug into the red
 AUDIO OUT R jack.
- 3. Insert one end of the supplied video cable (yellow) to the Video OUT C (composite) jack on the back of the media center. Insert the other end of the video cable into one of the video input jacks on your TV.

Figure 12

TV and VCR connections with media center

Remember the name of the TV video input you plugged the video cable into (for example: Video 1, Input 1, or Aux). Later, you will need to select the corresponding video input on your TV in order to view the 3•2•1 system video output.



If your TV does not have audio output jacks

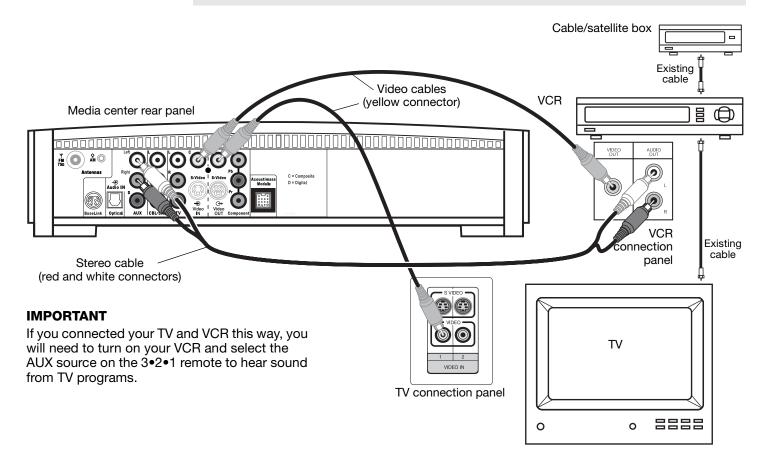
If your TV does not have audio output jacks, you will need to feed audio to the 3•2•1 home entertainment system through a secondary source, such as a VCR. To do this, you will need one additional video cable, which can be purchased at your local electronics store.

- Connect one end of the supplied stereo cable to the AUX Audio IN jacks on the rear panel of the media center (Figure 13). Insert the white RCA plug into the AUX white L jack. Insert the red RCA plug into the AUX red R jack.
- Connect the other end of the stereo cable to the AUDIO OUT jacks on your VCR. Insert
 the white RCA plug into the white AUDIO OUT L jack. Insert the red RCA plug into the
 red AUDIO OUT R jack.
- 3. Insert one end of the supplied video cable (yellow) into the VIDEO OUT jack on the back of your VCR. Insert the other end of the supplied video cable into the Video IN C (composite) jack on the back of the media center.
- 4. Insert one end of the second video cable (yellow) into the Video OUT C (composite) jack on the back of the media center. Insert the other end of the second video cable into one of the video input jacks on your TV.

Figure 13

System setup when TV has no audio output jacks

Remember the name of the TV video input you plugged the video cable into (for example: Video 1, Input 1, or Aux). Later, you will need to select the corresponding video input on your TV in order to view the 3•2•1 system video output.



VCR considerations

- Some combination TV/VCR units may not work with 3•2•1 Series II home entertainment systems. Please refer to your TV/VCR owner's manual for information.
- A stereo VCR is required for optimal sound performance. If your VCR has only one audio output and is not labeled **Stereo** or **Hi-fi**, you have a mono VCR. You will need a Y-adapter cable (available at electronics stores) to connect audio to the media center. For this setup, you will need to select "Mono decoding" (see "TV, CBL-SAT, and AUX settings menu" on page 43) so your 3•2•1 system will simulate surround sound effects from a mono source. Otherwise, you will hear mono sound from both speakers.

Advanced setup options

Making S-video connections (higher quality video)

An S-video input jack, provided on many TVs, delivers a higher quality TV picture than the composite video output connection shown in Figure 11. For this connection you will need an S-video cable which can be purchased from your Bose dealer or a local electronics retailer.

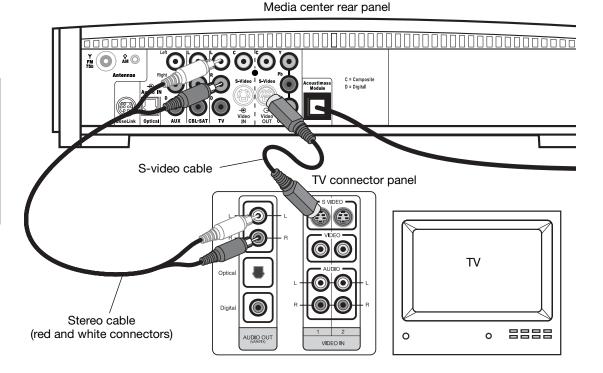
- Insert one end of the S-video cable into the S-Video OUT jack on the media center (Figure 14).
- Insert the other end of the S-video cable into the S-VIDEO IN jack on your TV.

Figure 14

TV (S-video)-to-media center connections

IMPORTANT

If you use S-video to connect your TV to the media center, you must also use S-video to connect all other devices (such as a cable box and VCR) to the media center.



Making component video connections (highest quality video)

Note: Component video connections are required in order to use the progressive scan feature of your 3•2•1 system. Your TV must also support this feature. To turn on the progressive scan feature, see "Video options" on page 47.

For the highest quality video from DVDs, you may want to use a component video connection between the media center and the TV. To do so, your TV must provide component video jacks (typically labelled Y, Pb, and Pr). Refer to your TV owner's guide for more information.

To make component video connections you will need three video grade cables that are long enough to reach from the rear of the media center to your TV (Figure 15). If the cables are not supplied with your TV, you can purchase them separately.

- On the media center rear panel, plug one video cable into the Component Y, Pb, and Pr video output jacks (Figure 15).
- 2. Plug the other end of each video cable into the corresponding (color or letter code) component video jack on the back of your TV.

Media center rear panel

TV connector panel

TV connector panel

Stereo cable (red and white connectors)

IMPORTANT FOR COMPONENT VIDEO USERS

Input signals received by the **C** (Composite) or **S-Video IN** jacks are not passed through to the **Component** video **OUT** jacks. If you connect an external video device to the **C** or **S-Video IN** jack, you must also connect the **C** or **S-Video OUT** jack on the media center to the respective video input jack on your TV. To view the external video input on your TV, you will need to select the TV video input used for that device. To view the onscreen menus of the 3•2•1 system, you will need to switch back to the TV's component video input.

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Note: For more information, or to purchase the video cables, contact your local electronics store or authorized Bose dealer.

Figure 15

TV (component video)-tomedia center connections

8888

Connecting digital audio devices

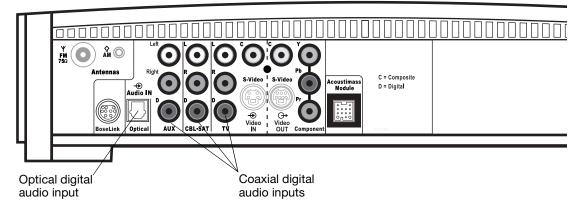
Some audio devices may feature a digital audio output for optimum sound performance. Use an optical digital cable or a coaxial digital cable, as appropriate, to connect this output to the digital input on the media center. You can purchase the required cables at a local electronics store.

On the media center rear panel, an optical digital cable connects to the OPTICAL jack. A coaxial cable connects to the audio input jacks labeled **D**.

- ▶ **Note:** The digital audio inputs of the 3•2•1 system are not able to decode a DTS bitstream from an external audio device. Only a DTS bitstream from the internal DVD player can be decoded.
- Note: Before you can benefit from the optical connection, you will need to assign the optical connector to the audio source in the system settings menu. See "Media center options" on page 48.

Figure 16

Media center digital audio input jacks



Connecting your cable/satellite box, TV, and VCR to the media center

The 3•2•1 home entertainment system provides flexibility for you to add up to three external audio devices, including your TV, directly to the media center.

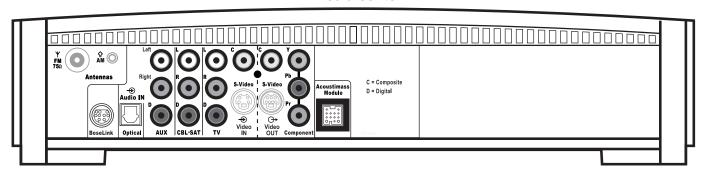
Figure 17 shows you an advanced setup using a TV, VCR and cable/satellite box. In this setup, please notice the following:

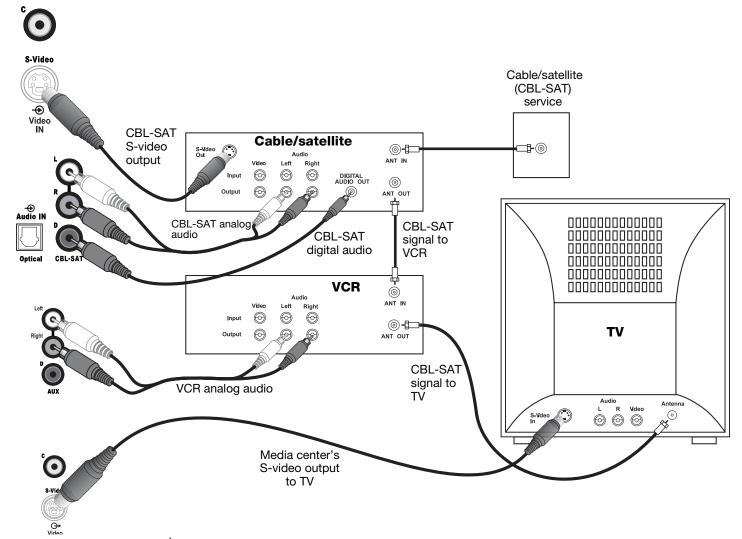
- S-video connections are used to deliver the cable/satellite signal to the media center. Therefore, the media center output video is sent to the TV also through an S-video connection.
- Analog and digital coax audio connections are shown for the cable/satellite box. As an option, you may use an optical digital connection. However, before you can benefit from the optical connection, you will need to assign the optical connector to the cable/satellite box audio source in the system settings menu. See "Media center options" on page 48.
- When connecting an audio device to the media center jacks, remember to match the red jack to the right channel (R) and the white (or black) jack to the left channel (L).
- For further details on making the video connections between your VCR and TV, refer to the manuals for these video devices.
- Note: The recommendations contained in this owner's guide are basic suggestions for connecting external devices to the 3•2•1 Series II system. Instructions and terminology pertinent to these external devices may vary, depending on the manufacturer. Consult the owner's guide that came with the device for clarification on setup and usage before making any connections.

Figure 17

Advanced setup: TV, VCR and cable/satellite box

Media center





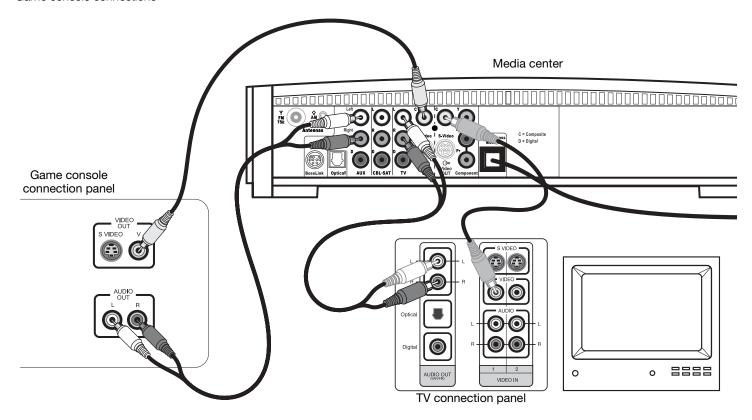
Note: For more information on advanced connections, refer to the DVD setup disc that came with your 3•2•1 Series II home entertainment system.

Connecting a game console

Connect the audio output of a game console to the **AUX Left** and **Right** input jacks. Connect the video output of the game console to the **C** (composite) **Video IN** jack.

Figure 18

Game console connections



IMPORTANT

If you connected your game console this way, you will need to select the AUX source on the 3•2•1 remote in order to hear sound from the game console.

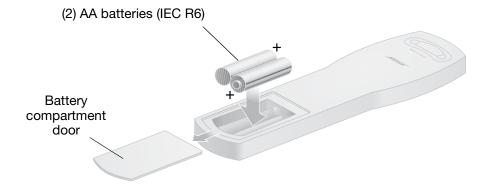
Installing the remote control batteries

- 1. On the back of the remote, slide open the battery compartment (Figure 19).
- 2. Insert the two supplied AA (IEC-R6) 1.5V batteries, or their equivalent, as shown. Match the plus (+) and minus (–) marked on the batteries with the plus (+) and minus (–) inside the battery compartment.
- 3. Slide the battery compartment cover back into place.

Note: Replace the batteries when the remote control stops operating or its range seems reduced.

Figure 19

Installing the batteries

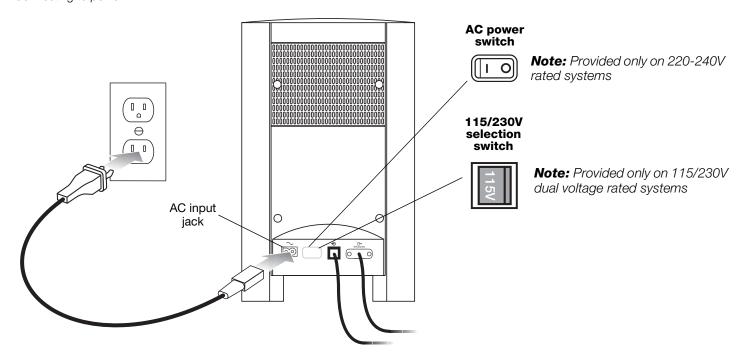


Connecting the power cord

- **CAUTION:** For dual voltage models only, be sure to set the dual voltage switch on the back of the Acoustimass® module to the appropriate voltage for your area (115V or 230V) before connecting to power. If you are not sure about the proper voltage for your area, consult your local electrical authorities.
 - **1.** Insert the small connector end of the power cord into the AC INPUT connector on the Acoustimass module (Figure 20).
 - 2. Insert the large end of the cord into an AC power (mains) outlet.

Note: On 220-240V models only, turn the Acoustimass module POWER switch to on (I).

Figure 20
Connecting to power



Checking your system setup

1. Check the following before you continue:

- All cables are connected for the setup you chose.
- The batteries were installed in the remote control.
- The power cord was installed and plugged into a live AC receptacle.
- 2. Turn on your TV. Use the remote control that came with your TV.

3. Select the right video input on your TV to view the 3.2.1 system video output.

- Refer to the name of the TV video input you used during setup.
- Use the remote for your TV to select the video input for your 3•2•1 system. The video input button might be labelled "TV Input", "TV/VCR", or "AV". Refer to your TV's owner's guide for help.

4. Turn off the speakers on your TV.

- Refer to your TV's owner's guide for help.
- If your TV does not have an option to turn off the internal speakers, you may need to adjust both the 3•2•1 system volume and your TV volume until you find a level that produces the desired sound.
- In some TVs, when the internal speakers are turned off, you may need to raise the TV's volume level by 75% to 100% in order to hear audio from the 3•2•1 home entertainment system. See your TV owner's guide for help.

5. Turn on your 3•2•1 system.

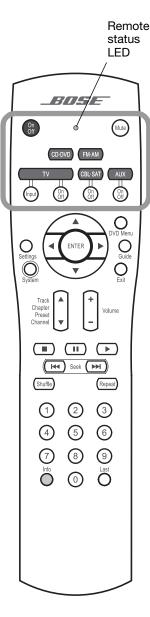
• Point the 3•2•1 remote control at the media center and press **On-Off**.

6. Play the 3•2•1 setup DVD.

- Press **Eject** on the media center control panel.
- Insert the DVD setup disc into the disc tray.
- Press **Eject** again to close the tray. The DVD will automatically begin to play. If it does
 not, press the play button (()).

Note: Be sure to play the Setup DVD, included in the carton with your system, as soon as all the connections are completed. This will help you verify the connections you have made and confirm proper sound performance.

Remote control





Turns the system on or off.



- Remains off (unlit) during normal operation.
- Remains on during setup mode. Turns off briefly with each key press.
- Blinks rapidly eight times if the wrong key is pressed during setup or if an unavailable device code is entered.
- After ten seconds of no key presses, blinks rapidly eight times and the remote exits the setup mode.



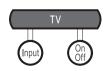
Silences or restores the sound from the current source.



Selects the built-in CD/DVD player and turns the system on.



- Selects the built-in tuner and turns the system on to the previously selected FM/AM station.
- Switches between FM and AM when the tuner is selected.



TV: Turns your system on and selects the TV input as the sound source.

Input: Changes the external input to your TV. For example, your TV might have two external inputs where one is connected to your cable box and the other to your VCR. Pressing this button alternates between the cable box and the VCR.*

On/Off: Turns your TV on and off.*



CBL-SAT: Turns your system on and selects the CBL-SAT input as the sound source.



On/Off: Turns your cable/satellite box on or off.*

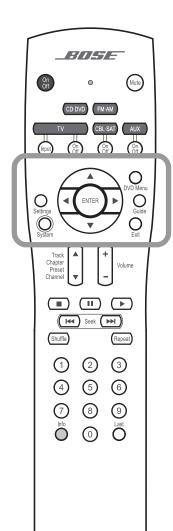


AUX: Turns your system on and selects the AUX input as the sound source.

On/Off: Turns a VCR or PVR that is connected to the AUX jack on or off.*

^{*}Requires special remote settings. See "Setting up your remote to control other audio/video devices" on page 35.

Remote control - cont.





Puts the Settings menu for the current source on your TV screen or media center display.



Puts the System menu on your TV screen.

- O DVD Menu
- Puts the DVD menu of the currently loaded DVD disc on your TV screen.
 Puts the main manu of a cable/satellite box VCR or PVR on your TV
- Puts the main menu of a cable/satellite box, VCR, or PVR on your TV screen (if supported).*



Puts the TV program guide (if supported) on your TV screen.



Dismisses the Settings menu, System menu, or TV program guide (if supported) from your TV screen or media center display.



- Tunes the FM or AM radio to the next higher or lower frequency.
- Selects the next item, up or down, in menus.



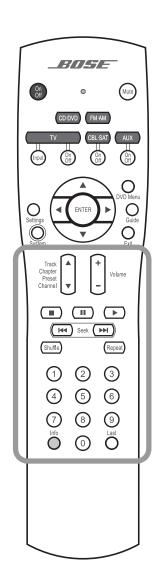
Confirms a menu selection or introduces the next level of menu options.



Moves up, down, left, or right in onscreen menus and media center displays.

^{*}Requires special remote settings. See "Setting up your remote to control other audio/video devices" on page 35.

Remote control - cont.





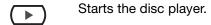
- Raises or lowers the volume of the current source.
- Pressing + restores muted sound from the current source.
- Pressing lowers the volume of the current source, but does not restore muted sound.



Skips to the next or previous CD track, DVD chapter, radio station preset, or TV channel (if the remote is set up to control your TV).



- Stops the disc player.
- For DVDs only, the disc stops and the system saves the DVD play position. Pressing () continues the DVD from the saved play position. Pressing • twice for a disc in play returns to the beginning of the disc.
- Pauses a currently playing disc. Ш
 - Pressing (II) again (or pressing (>)) resumes play of a paused disc.
 - After 20 minutes of no user interaction, the disc player stops and returns to the beginning of the disc to wait for the next command.



- Skips backward or forward through CD tracks.
- Skips backward or forward through DVD chapters.
- Seeks backward or forward to the next strongest radio station.

Shuffle

Plays audio CD tracks in random order. Press again to cancel this mode.



Repeats a CD, CD track, DVD chapter, or DVD title. Press again to change the repeat mode.

- (1) **(2) (3)**
- 4 (5) (6)
- (7) (8) (9) (0)
- Provides a means for selecting a CD track, DVD chapter, radio station preset, or TV channel.
- Allows you to change numerical values for some menu options.

Info

- Displays or dismisses a cable/satellite information window, if supported.
- If playing an MP3 CD, displays or dismisses artist and title information on the media center display panel.

Skips to the previous TV channel (if supported by your TV).

The media center

The media center has a control panel on the top, a display area to show the current status of the system, and a disc tray that opens on the front of the console.

Control panel

The media center has six buttons located on the top control panel. Their functions are also available through use of the remote control.

Figure 21

Media center controls

On-Off	Source	- Volume +		Enter	Eject
Turns system power on or off.	Steps through the available	ailable the volume level.		 Used to navigate through menus. 	Opens or closes the disc tray.
OII.	source selections.		•	 Selects the next available FM/AM preset. 	disc tray.

Note: If you selected another source by pressing the **Source** button, you cannot control the new source with the remote until you press the button for that new source on the remote.

Display indicators

With the system turned on, the music center display lights up to show the state of the system. Not all possible choices, shown below, light up at once (Figure 22). The display changes with each adjustment or selection you make.

Figure 22

Sample media center display



Turning your system on and off

To turn power on or off:

- Point the 3•2•1 remote at the media center and press On/Off.
- Press On-Off on top of the media center.

To turn the system on to a source:

- Press CD-DVD, FM-AM, TV, CBL-SAT, or AUX on the 3•2•1 remote.
- Note: Your 3•2•1 remote control can be set up to control other audio devices such as your TV, VCR, or cable/satellite receiver. For instructions, see "Setting up your remote to control other audio/video devices" on page 35.

Playing video DVDs

Before you play your first DVD:

- Familiarize yourself with the 3•2•1 remote control. See "Remote control" on page 26.
- Be sure you understand how to switch between the available video inputs on your TV. To view a video DVD, you will need to select the video input on your TV that is connected to video output of the 3•2•1 media center (see "Connecting your TV to the media center" on page 15).
- If you are unable to select the correct video input on your TV, please consult your TV's owner's guide.
- Be sure that you play the 3•2•1 system setup DVD first. This will help you verify the connections you have made and confirm proper sound performance.
- 1. Turn on your TV.
- 2. On the 3•2•1 remote, press CD/DVD to turn the 3•2•1 system on to the CD/DVD source.
- 3. On the media center control panel, press **Eject** to open the disc tray.
- **4.** Place the DVD disc in the disc tray.
- **5.** Press **Eject** again to close the tray.

The DVD should begin to play automatically. If not, press **Play** on the 3•2•1 remote.

Note: Not all DVDs offer the same features. For example, you can choose to display subtitles while watching a movie only if that particular disc provides subtitle information.

While a DVD video is playing, elapsed play time and chapter number are displayed on the media center front panel.

Figure 23

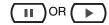
Sample display for a DVD video



Basic DVD operations



• Press Pause to pause a movie.



• Press Pause again, or press Play to resume playing a paused CD.



- Use the stop button (■) to interrupt a movie in play.
 - Press
 once to interrupt a playing movie. The system holds the movie at the point of interruption. Press Play to resume play from the point of interruption.

OR

Press
 twice. Play is interrupted and the system returns to the beginning of the disc.
 Press Play to restart the video.



• Press **Chapter** ▲ to skip to the next chapter on the current DVD. Press **Chapter** ▼ to skip to the previous chapter.



Press Repeat while a chapter is playing to make it repeat.



• Press I◄◄ to scan backward through the current DVD. Press ▶▶I to scan forward.

Eject



- Press **Eject** on the media center to stop a disc and open the disc tray.
- ▶ **Note:** For information on changing DVD-related source settings, see "DVD settings menu" on page 42.

Restricting access to video DVDs

The DVD Lock menu allows you to restrict access to video DVDs which may contain inappropriate material for certain members of your family. You can get to the DVD Lock menu by pressing the **System** button on the remote control. This feature allows you to set up password access for movies which have a certain rating. For instructions on using the DVD Lock menu, see "DVD Lock options" on page 50.

Playing audio CDs



1. On the 3•2•1 remote, press **CD/DVD** to turn the 3•2•1 system on to the CD/DVD source.

Eject



- **2.** On the media center control panel, press **Eject** to open the disc tray.
- 3. Place the DVD disc in the disc tray.

Eject

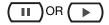


- **4.** Press **Eject** again to close the tray.
- **(**
- **5.** The audio CD should begin to play automatically. If not, press **Play** on the 3•2•1 remote.

Basic CD operations



• Press Pause to pause an audio CD.



• Press Pause again, or press Play to resume playing a paused CD.



Press ■ to stop an audio CD.



 Press Track ▲ to skip to the next track on the current CD. Press Track ▼ to skip to the previous track.



- Press and hold I◄◄ to scan backward through the current CD. Press and hold ►►I to scan forward.
- Press ▶▶I once to advance to the next song.



• Press **Repeat** once for REPEAT TRACK mode. Press **Repeat** again for REPEAT DISC mode. Press **Repeat** again to turn the repeat functions off (REPEAT OFF).



 Press Shuffle once for SHUFFLE DISC mode. Press Shuffle again to turn off the shuffle mode (SHUFFLE OFF).

Note: For information on changing CD-related source settings, see "CD settings menu" on page 41.

Note: If playing an MP3 CD, the Info button displays or clears artist and title information on the media center display panel.

Listening to FM/AM radio



On the 3•2•1 remote, press FM-AM. If the system is off, the radio will turn on to the most recently selected station.

Tuning to a station

You can tune to a radio station in any of the following ways:



• Press **FM-AM** to switch between the FM and AM bands.



Press Tune ▲ to tune up the band. Press Tune ▼ to tune down the band.



 Press Seek I◄◄ to go to the previous station. Press Seek ►►I to go to the next available station. Press and hold for rapid tuning. Release to stop at the next available station. To stop anytime, briefly press Seek idd or Seek ▶ы. To begin seeking again without holding down the Seek button, briefly press Seek I◄< or Seek ▶▶I as soon as the first seek operation stops.



 Press Preset ▲ to select the next stored station. Press Preset ▼ to select the previous stored station.



OR

- (8) (0)
- ♪ Note: For information on changing FM/AM-related source settings, see "FM/AM settings menu" on page 41.

Storing stations as presets

Using your 3•2•1 remote control you can store up to 20 AM and 20 FM station presets. This enables you to tune to a favorite station quickly.

- **1.** Tune to the preferred station.
- 2. Store the station with an assigned preset number.

Press the number of a stored station on the keypad.

- For numbers 1-9, press the single number button and hold it. For numbers 10-20, press the first number. Immediately after, press the second number and hold it.
- OR, press Enter on the media center to store the selected station at the next available preset number.

The newly assigned preset number appears briefly on the media center display.

P Note: Assigning a preset number to a station will replace any previous assignment of that preset.

Erasing a preset

- 1. Tune to the preset station.
- 2. Press and hold the 0 button on the remote until the media center display tells you that the preset is erased.

Playing other sources

Turn on any component connected to the media center by using the remote for that component or controls on the component front panel. Use the 3•2•1 Series II or 3•2•1 GS Series II system remote to get started:

- Pressing TV, CBL-SAT, or AUX on the 3•2•1 or 3•2•1 GS system remote turns on the system and selects the audio for that component. Be sure a tape or disc is loaded, as needed.
- Use the **Volume** up or down arrows on the system remote or on the media center to raise or lower the volume of the system.

Using the sleep timer

Your system includes a sleep timer which can be set to turn your system off automatically after 1 to 90 minutes of listening to any source. This timer can be accessed through the Settings menu for any source. See "Changing Source Settings" on page 39.

Note: The sleep timer will not turn off the TV or other audio device.

Setting up your remote to control other audio/video devices

Your remote can be set up to control other audio devices such as a TV, VCR, PVR or cable/satellite box by entering a device code while in the setup mode.

- If you know the device code, follow the instructions under the heading, "Direct entry of a device code" below. Device codes are listed in the back section of this owner's guide and in the System menus under Remote Control options.
- If you can't find the device code and want to search the system for it, see "Searching for a device code" on page 36.
- If you want to verify the device code you have entered for an audio device, see "Verifying an entered device code" on page 38.
- Note: More than one code may work with your particular brand of product. If you notice a lack of response or limited functionality after setting up the remote, try a different code.
- Note: The remote status LED flashes rapidly eight times if you press an invalid key, or enter an unavailable device code. Wait seven seconds for the error to clear and start again.

Direct entry of a device code

Device codes can be found at the back of this owner's guide or in the System menu under Remote Control options. If you know the device code, you can do the following:

To set up the remote to control your TV

1. Turn on both the 3•2•1 system and your TV.



- 2. Press and hold the TV button until the remote LED is lit (about five seconds).
- **3.** On the remote keypad, enter the four-digit device code for your TV. The LED will turn off temporarily as you press each key.
- **4.** Check that the LED turns off after the code is entered. If the LED blinks, the code is invalid. Try again.



CBL · SAT

5. Point the remote at your TV and press the **TV On-Off** button. If your TV does not respond, go back to step 2 and try other codes. If you are still unsuccessful, see "Searching for a device code" on page 36.

To set up the remote to control your cable/satellite box



- 1. Turn on both the 3•2•1 system and your cable/satellite box.
- 2. Press and hold the CBL-SAT button until the remote LED is lit (about five seconds).
- **3.** On the remote keypad, enter the four-digit device code for your cable/satellite box. The LED will turn off temporarily as you press each key.
- **4.** Check that the LED turns off after the code is entered. If the LED blinks, the code is invalid. Try again.



5. Point the remote at your cable/satellite box and press the **CBL-SAT On-Off** button. If your cable/satellite box does not respond, go back to step 2 and try other codes. If you are still unsuccessful, see "Searching for a device code" on page 36.

To set up the remote to control your VCR or PVR (such as Tivo or Replay TV)

1. Turn on both the 3•2•1 system and your VCR or PVR.



- 2. Press and hold the AUX button until the remote LED is lit (about five seconds).
- **3.** On the remote keypad, enter the four-digit device code for your VCR/PVR. The LED will turn off temporarily as you press each key.
- **4.** Check that the LED turns off after the code is entered. If the LED blinks, the code is invalid. Try again.



5. Point the remote at your VCR or PVR and press the **AUX On-Off** button. If your VCR or PVR does not respond, go back to step 2 and try other codes. If you are still unsuccessful, see "Searching for a device code" on page 36.

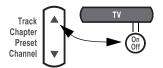
Searching for a device code

Use this method if you do not know the device code for a device.

Note: This is a very time-consuming process. Use it as a last resort.

To set up the remote to control your TV

- 1. Turn on both the 3•2•1 system and your TV.
- TV
- 2. Press and hold **TV** until the remote LED is lit (about five seconds).



3. Alternately press Channel ▲ and TV On-Off until your TV turns off.



4. Press Enter. Check that the remote LED turns off.



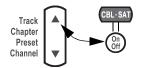
5. Point the remote at your TV and press **TV On-Off**. If your TV does not respond, go back to step 2 and try again.

To set up the remote to control your cable/satellite box

1. Turn on both the 3•2•1 system and your cable/satellite box.



2. Press and hold CBL-SAT until the remote LED is lit (about five seconds).



 Alternately press Channel ▲ and CBL-SAT On-Off until your cable/satellite box turns off.



4. Press Enter. Check that the remote LED turns off.



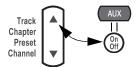
5. Point the remote at your cable/satellite box and press **CBL-SAT On-Off.** If your cable/satellite box does not respond, go back to step 2 and try again.

To set up the remote to control your VCR or PVR (for example, TiVo or Replay TV)

1. Turn on both the 3•2•1 system and your VCR/PVR.



2. Press and hold AUX until the remote LED is lit (about five seconds).



3. Alternately press **Channel △** and **AUX On-Off** until your VCR/PVR turns off.



4. Press Enter. Check that the remote LED turns off.



5. Point the remote at your VCR/PVR and press **AUX On-Off.** If your VCR/PVR does not respond, go back to step 2 and try again.

Verifying an entered device code

In case you need to check to see what code the remote is using for a particular audio device, do the following:

- 1. Press and hold a source key (TV, CBL-SAT, or AUX) until the remote LED lights (about five seconds)
- 2. Press the **Info** button.
- **3.** Press **1** on the remote and count the number of times the LED blinks (zero is indicated by a long blink). This is the first digit.
- **4.** Press **2** on the remote and count the number of times the LED blinks (zero is indicated by a long blink). This is the second digit.
- **5.** Press **3** on the remote and count the number of times the LED blinks (zero is indicated by a long blink). This is the third digit.
- **6.** Press **4** on the remote and count the number of times the LED blinks (zero is indicated by a long blink). This is the fourth digit.
- 7. Press Exit.

Changing channel selection control

If you are using your 3•2•1 home entertainment system with other audio devices, such as a VCR and cable/satellite box, you may wish to change channels using one of these other audio devices rather than your TV.

You can easily switch your 3•2•1 remote to change channels on another audio device:

O

1. Press and hold **Last** on the 3•2•1 remote. The remote status LED will illuminate and blink the number of times corresponding to the device controlling channel selection.

1 blink = TV 2 blinks = CBL-SAT

3 blinks = AUX

2. After the blinking stops, press the source button (**TV, CBL-SAT,** or **AUX**) that corresponds to the device you want to use for channel selection.

Exit

3. Press Exit on the 3•2•1 remote.

To confirm, press and hold **Last** on the 3•2•1 remote and count the number of blinks. If the change was made, press **Exit.** If not, repeat steps 2 and 3.

Using the settings menus

While watching a video or listening to music on your system, you can make quick adjustments that will increase your enjoyment of the program. For that purpose, each source you use with this system has its own Settings menu with features appropriate to that source.

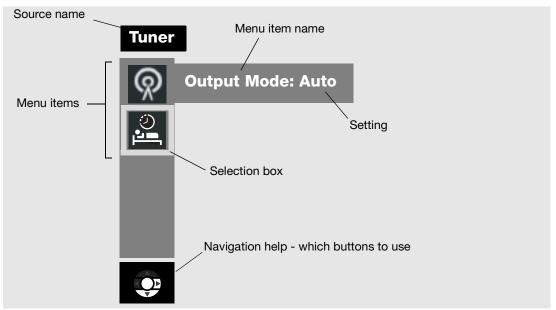
To view the settings menus

You can see the Settings menu for each source on your TV screen (Figure 24) and on the display panel of your media center (Figure 25).

- 1. Turn on your TV and select the correct TV input to view your 3•2•1 system.
- 2. Press a source button on your 3•2•1 remote control.
- 3. Press Settings to display the Settings menu for the selected source.
 If the list of menu items is too long for the screen, a small down or up arrow indicates that you need to scroll down or up to see other items.
- **4.** Press **Exit** to dismiss the Settings menu.

Exit

Figure 24
Sample Settings menu on your TV screen



Note: Any changes made in the settings menu on your TV screen will also appear in the media center display panel.

On the media center display panel, menu items will scroll in and out of view as you press the up (\blacktriangle) and down (\blacktriangledown) arrow buttons on the remote.

Figure 25

Sample Settings menu on the media center display

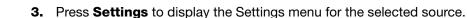


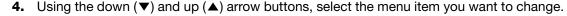
To make changes in the settings menus

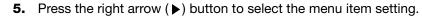
Whether you use your TV screen or the media center display to change settings, the same instructions apply.

You can use the actions above to change back to the original (default) settings, too. Do that if you do not like the effect of a change you have made, or accidentally made a change you did not intend. The default settings for each source are shown in the menu tables on the following pages.

- 1. Turn on your TV and select the correct TV input to view your 3•2•1 system.
- 2. Press a source button on your 3•2•1 remote control.







- **6.** Press the up (▲) or down (▼) arrow button to change the setting.
- **7.** Press **Enter** or the left arrow (◀) button to save the setting.

8. Press Exit to dismiss the Settings menu.The progression in Figure 26 shows output mode for the FM tuner being changed from Auto



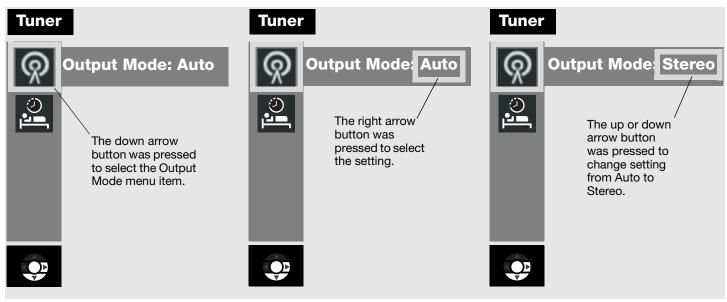


O Exit

to Stereo.

Figure 26

Changing the FM output mode setting



Note: You can restore all default settings by choosing Restore Settings in the Systems menu, under Media Center options. This reverts all source settings back to the factory default settings. It also changes the Audio Processing setting back to Automatic (found in the Systems menu under Audio options).

FM/AM settings menu

To see the FM/AM Settings menu, press **FM-AM** on the remote. Then press **Settings.** Press **Exit** to remove the menu from the screen.

Item	Name	Settings	Default	Description
(A)	Output Mode (FM only)	Auto, Stereo, Mono	Auto	Allows you to listen to stereo broad- casts in either stereo or mono output.
RDS	RDS Info (FM only, and only on some systems)	Off, On	Off	Displays station and program information (as available from Radio Data System).
	Sleep Timer	Off, 10-90 minutes	Off	Turns the system off after the set time expires. Choose off to deactivate the timer.

CD settings menu

To see the CD Settings menu, press **CD-DVD** on the remote while playing an audio CD. Then press **Settings.** Press **Exit** to remove the menu from the screen.

Item	Name	Settings	Default	Description
•	Track	of		Allows you to select a track on the current disc.
	Sleep Timer	Off, 10-90 minutes	Off	Turns the system off after the set time expires. Choose off to deactivate the timer.

DVD settings menu

To see the DVD Settings menu, press **CD-DVD** on the remote while playing a DVD video disc. Then press **Settings.** Press **Exit** to remove the menu from the screen.

Item	Name	Settings	Default	Description
- (1)	Movie EQ*	On, Off	On	Optimizes the tonal balance for movies.
*	Range Compression*	On, Off	On	Adjusts volume to maintain dialogue intelligibility. Keeps some sounds from overwhelming others.
	Mono Decoding*	On, Off	On	Engages Videostage® 5 mono decoding circuitry to process mono sound (one-channel audio) for your system.
()	Time	_:	0:00	Displays the elapsed time of the current DVD. Also, allows you to move to a new location in the movie by entering a new time.
T	Title	of		Selects a DVD title from the current disc, according to the number set. Some DVDs do not allow direct access to titles.
C	Chapter			Selects a DVD chapter from the current DVD movie, according to the number entered. Some DVDs do not allow direct access to chapters.
•	Audio Track	Dependent on disc		Allows you to choose one of the available audio tracks on the current disc.
	Subtitle language	Dependent on disc		Allows you to choose one of the available subtitle languages (only if included on disc).
*	Camera Angle	1 of		Allows you to select one of the available camera angles (only if included on disc).
A ∙B	A-B Repeat	А, В		Repeats a segment of the DVD after the start and end points are defined. To begin:
~				1. Move backward or forward to the point in the DVD where you want the segment to start.
				2. Press Enter.
				3. Move to the point where you want it to end.
				4. Press Enter.
				Repeats until you press the Exit or Settings button.
<u></u>	Sleep Timer	Off, 10-90 minutes	Off	Turns the system off after the set time expires. Choose off to deactivate the timer.

^{*}Available only when Audio Processing is set to User Adjustable. See "Audio options" on page 46 for more information.

TV, CBL-SAT, and AUX settings menu

The settings below affect programs on the TV, even when the source of the program is VCR, CBL/SAT or AUX. There are no separate setting menus for these sources.

Movie EQ, Range Compression and Mono Decoding appear in the menu only if **Audio Processing** is set to **User Adjustable.** Audio Processing can be found in the System menu under Audio options.

Item	Name	Settings	Default	Description
())	Movie EQ*	On, Off	On	Optimizes the tonal balance for movies.
Ž	Range Compression*	On, Off	On	Adjusts volume to maintain dialogue intelligibility. Keeps some sounds from overwhelming others.
d ;	Mono Decoding*	On, Off	On	Engages Videostage® 5 mono decoding circuitry to process mono sound (one-channel audio) for your system.
1+1	Dolby Digital 1+1**	1, 2, Both	1	Plays audio content of selected soundtrack(s). The content of the second soundtrack may be a second language, for example.
	Sleep Timer	Off, 10-90 minutes	Off	Turns the system off after the set time expires. Choose off to deactivate the timer.

^{*}Available only when Audio Processing is set to User Adjustable. See "Audio options" on page 46 for more information.

^{**} Available only when a Dolby Digital 1+1 signal is detected.

Using the System menu

Changes to system options are typically made only once. If your system operates as you want it to, there may be no need for any changes. In some cases, however, changes are required to make the system fully compatible with the installation options you have chosen.

To view the System menu

Unlike the source settings menus, the System menu only appears on your TV screen.

1. Turn on your TV and select the correct TV input to view your 3•2•1 system.



2. Press the **System** button on your 3•2•1 remote control. The System menu appears with Audio options selected, showing a list of the Audio options that can be changed.

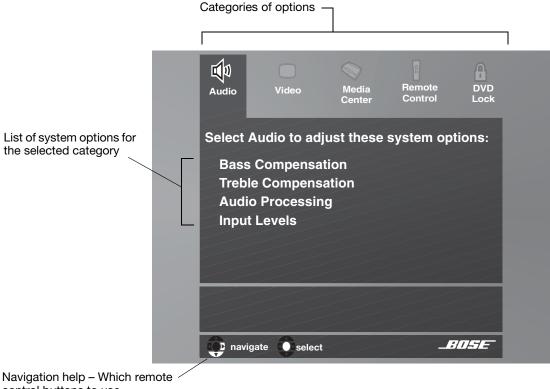


Press **System** again, or press **Exit** to dismiss the System menu.

PNote: Entering the System menu causes any DVD or VCD that is playing to pause.

Figure 27

Sample system menu showing audio options



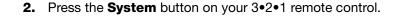
control buttons to use

To change system options

Changing system options in this menu is similar to changing the settings for a source.

1. Turn on your TV and select the correct TV input to view your 3•2•1 system.







- **3.** Using the right (▶) and left (◄) arrow buttons, highlight one of the option categories (Audio, Video, Media Center, Remote Control, or DVD Lock).
- **4.** Press **Enter** or the down (**▼**) arrow to select the option category.
- **5.** Using the down (∇) and up (\triangle) arrow buttons, select the system option to change.
- **6.** Press the right arrow (▶) button to see the system option settings.
- **7.** Press the up (\blacktriangle) or down (\blacktriangledown) arrow button to change the setting.
- **8.** Press **Enter** or the left arrow (◀) button to save the setting.



9. Press System again, or press Exit to dismiss the System menu.

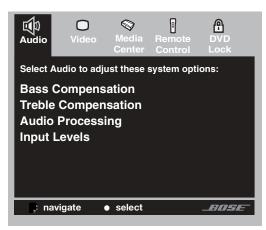
Audio options

The audio options affect the way the system sounds in your home.

Note: Listening to an audio source while you change audio options can be helpful. Some changes will be immediately noticeable and therefore useful in fine tuning your selections.

Figure 28

Audio system options



System Option	Settings	Description
Bass Compensation	0 [default]	Normal low-frequency reproduction.
	-14 to +14	Decreased (-) or increased (+) low-frequency reproduction.
Treble Compensation	0 [default]	Normal high-frequency reproduction.
	-14 to +14	Decreased (-) or increased (+) high-frequency reproduction.
Audio Processing	Automatic [default]	Standard Bose® processing applied.
	User Adjustable	Processing options (Movie EQ, Range Compression, Mono Decoding) available in Source Settings menus.
Input Levels:	Normal [default]	Standard signal level (loudness).
TV Analog Input Level TV Digital Input Level	-6, -3, +3, +6	Decreases or increases signal level (adjustable to match the levels of other audio devices).
CBL/SAT Analog Input Level		
CBL/SAT Digital Input Level		Note: You may want to adjust the input levels of external audio
AUX Analog Input Level		devices so they match the system's internal FM and CD levels.
AUX Digital Input Level		

Video options

The video options affect the way the picture looks on your TV.

Figure 29

Video system options



System Option	Settings	Description
TV Aspect Ratio	Normal [default] Widescreen	4:3 ratio screen display. 16:9 ratio widescreen display.
Widescreen DVDs	Modified [default] Unmodified	Modified [default]. Unmodified.
Video Connector*	Composite + S-Video [default] Component	Identifies the type of video connection made on the back panel of the media center.
Video Black Level	Normal [default] Extended	Screen black level generally appropriate for TVs. Increases screen black level, appropriate for certain TVs.
Video Format	NTSC [default] PAL	Correct for NTSC (US standard) monitors. Correct for PAL (European standard) monitors.
Progressive Scan**	Off [default] On	Screen image repaints in standard style. Screen image repaints in advanced style (if available on the TV).

^{*} A read-only item that indicates the connection detected automatically by the system.

^{**} Appears only when Video Connector is Component.

Media center options

The media center options affect the general operation of the system.

Figure 30

Media Center system options



System Option	Settings	Description
Display Brightness	4 [default]	Media center display lights with a mid-range brightness.
	1 (darkest) to 4 (brightest)	Darkens or lightens the media center display.
Display Language	English [default] Dansk, Deutsch, Espanol, Francais, Italiano, Nederlands, Svenska	On-screen display menus appear in the selected language.
Optical Source	None [default] TV, CBL/SAT, AUX	No digital signal received via optical cable. Digital signal received via optical cable for selected source.
Tuner Spacing	US [default] European	Channel spacing for AM/FM radio stations set to selected region standard.
Bose link Room Code*	B [default], C, D, E, F, G, H, I, J, K, L, M, N, or O	Assigns a room code to your 3•2•1 Series II system when it is connected to a Bose® link source.
Restore Factory Defaults	No Yes	Maintains current system settings. Reverts system settings back to factory defaults.

^{**} Appears only when a Bose® link source is connected.

Remote control options

The Remote Control options help you set up your remote to control other audio devices that are connected to your system.

Figure 31

Remote Control system options



System Option	Settings	Description
TV Brand	Brand name	Provides a list of TV brands for the 3•2•1 remote control to operate.
TV Device Code	Code number	Provides a list of available device codes for the selected TV brand.
CBL/SAT Device	Cable, Satellite	Identifies which of two devices is connected to the CBL-SAT input.
CBL/SAT Brand	Brand name	Provides a list of cable/satellite box brands for the 3•2•1 remote control to operate.
CBL/SAT Device Code	Code number	Provides a list of available device codes for the selected cable/satellite box brand.
AUX Device	VCR, PVR	Identifies which of two devices is connected to the AUX input.
AUX Brand	Brand name	Provides a list of VCR/PVR brands for the 3•2•1 remote control to operate.
AUX Device Code	Code number	Provides a list of available device codes for the selected VCR/PVR brand.

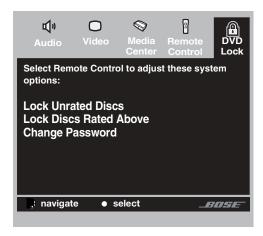
Note: To find the brand and device codes for each component that can be connected to, and controlled by the 3•2•1 system, see "Device Codes" on page 57.

DVD Lock options

The DVD Lock options allow you to restrict viewing of DVD videos with certain ratings. To activate this feature, you need to set a level of restriction and establish a password in the DVD Lock section of the System menu.

Figure 32

DVD Lock system options



System Option	Settings	Description
Lock Unrated Discs	Off	No restriction applies to unrated DVD movies.
	On	Restricts viewing access to unrated titles when password is set.
Lock Discs Rated Above	1 to 8	Helps prevent viewing discs above the selected number when a password is created.
Change Password		Establishes a new four-number code to restrict access to movies with certain ratings.

Setting a password and restriction level

Your password will help prevent unauthorized viewing of DVD videos that have a higher rating than your restriction level. There are 8 levels to choose from, matched to movie ratings set by the Motion Picture Association of America (MPAA). See "Motion Picture Association of America (MPAA) rating system" on page 51.

1. Turn on your TV and select the correct TV input to view your 3•2•1 system.



2. Press the **System** button on your 3•2•1 remote control.



3. Using the right (▶) and left (◀) arrow buttons, highlight the DVD Lock option.

Press Enter or the down (▼) arrow key.

Note: If you are using the DVD Lock option for the first time, enter a four-digit password. Then enter it again to confirm.

5. Enter your four-digit password.



- **6.** Using the down (▼) button, scroll down to Lock Discs Rated Above.
- **7.** Press the right arrow (▶) button to see the available settings.
- 8. Press the up (▲) or down (▼) arrow button to find the rating you want.
- **9.** Press **Enter** or the left arrow (◀) button to save the setting.



10. Press **Exit** to dismiss the Settings menu.

Motion Picture Association of America (MPAA) rating system

Parental Control Setting	MPAA Rating	Audience Restriction
8		None
7	NC-17	Adult audiences
6	R	Mature audiences
5		Mature teenage audiences
4	PG-13	Teenage audiences
3	PG	Mature young audiences
2		Most audiences
1	G	General

Example: Choosing a Parental Control Setting of 4, restricts access to videos rated above PG-13. Videos with ratings above that may be viewed only after entering the password.

Your password also helps prevent others from changing the restriction level setting without permission.

Cleaning

Cleaning the media center

- Use only a soft, dry cloth to clean the outside surfaces of the media center.
- Do not use any sprays near the system. Do not use any solvents, chemicals, or cleaning solutions containing alcohol, ammonia, or abrasives.
- Do not allow liquids to spill into any openings.

Cleaning the speakers

- Clean the surface of your speakers with a soft, damp cloth. You can use an ammonia-free window cleaner on a soft cloth to maintain the finish.
- Do not use any sprays near the speakers. Do not use any solvents, chemicals, or cleaning solutions containing alcohol, ammonia, or abrasives.
- Do not allow liquids to spill into any openings.
- The speaker grilles require no special care, although you may vacuum them carefully if necessary.

Cleaning discs

- Handle discs by their edges to prevent fingerprints and scratches (Figure 33a).
- To remove stains or fingerprints from the surface of a disc, use a soft and dry lint-free, cloth. Wipe in straight movements from the center of the disc to the outside (Figure 33b). Do not use any chemical products; they can damage the disc.
- Do not use a circular motion to clean (Figure 33c).
- Do not write on or attach labels to the surface of a disc.
- To minimize exposure to dust and dirt, return discs to their cases after use. Store each disc in its case, away from direct sunlight, high temperatures, and humidity.

Figure 33

Disc care



Replacing the remote control batteries

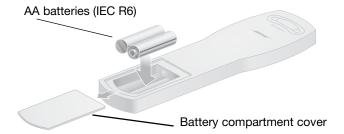


CAUTION: Please dispose of used batteries properly, following any local regulations. Do not incinerate.

- Slide open the battery compartment (Figure 34).
- Notice the polarity markings (+ and –) inside the compartment and install the batteries accordingly. Be sure to replace both batteries.
- Slide the battery compartment cover back into place.

Figure 34

Putting in the batteries



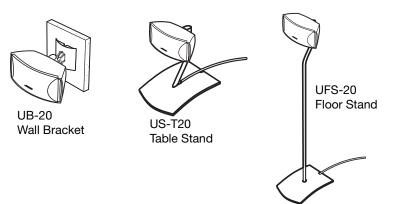
Accessories

The Bose® 3•2•1 Series II and 3•2•1 *GS* Series II system shelf speakers are compatible with Bose mounting accessories, including the UB-20 wall brackets, UFS-20 floor stands and UTS-20 table stands (Figure 35). Bose also offers cable adapters for use in running speaker cable through walls.

For further information or to order the mounting brackets, stands, or cable adapters, contact your Bose dealer or Bose Corporation directly. Refer to the address sheet included in the shipping carton.

Figure 35

Speaker accessories



Troubleshooting table

Problem	What to do
System doesn't do anything	 Make sure the unit is turned on. Try pressing the remote On-Off button and the media center On-Off button. Make sure the power cord is inserted securely into the Acoustimass® module and plugged firmly into an operating AC wall outlet. Be sure to select a source (CD/DVD, AM/FM, etc.). Unplug the Acoustimass module power cord from the outlet for one minute, then reconnect it. This allows the unit to reset itself. After reconnecting the power cord, wait for the message, "BOSE 3•2•1" to appear on the media center display.
Disc won't eject	 Turn off the unit. Unplug the Acoustimass module power cord from the outlet for one minute, then reconnect it. This allows the unit to reset itself. Before powering on, press and hold Eject on the media center.
No sound	 Increase the volume. Check to see if MUTE is lit on the display. If it is, press the Mute button on the remote control to unmute the sound. Make sure the Acoustimass module cable and speaker cable are firmly seated in their respective jacks and the multi-pin connector on the other end is firmly seated in the Acoustimass module jack. Check speaker connections. Turn the media center off for 10 seconds, then on again, to restore communication between the media center and the speakers. Check the connections for any external audio devices. Be sure to select the correct source for the desired input. Be sure the disc is placed correctly, label-side up, in the CD tray. Connect the FM and AM antennas. Unplug the Acoustimass module power cord from the outlet for a minute, then reconnect it. This allows the unit to reset itself. If you are using an optical digital audio connection, make sure that the optical jack is correctly assigned in the System menu. Make sure the volume is turned up on the TV. Check input level settings for each connected device in the System menu.

Problem	What to do
Sound, but no picture	 Make sure the TV is on. When playing a DVD or other video source, make sure the TV is set to the correct video input.
Remote control is inconsistent or does not work	 Check batteries and their polarity (+ and –). See "Replacing the remote control batteries" on page 53. Point the remote control at the media center.
Radio does not work or has poor reception	 Make sure antennas are connected properly. Move AM antenna at least 20 inches (50 cm) from the media center. Adjust antenna position to improve reception. AM antenna must be upright. Move antennas farther from TV or other electronic equipment. You may be in an area of weak signal coverage.
DVD or CD does not play	 Check to see if the Play symbol in the display is lit. After pressing the CD/DVD button, wait a few seconds before pressing Play. Make sure the disc is properly inserted (label-side up). Eject the disc and try loading it again. There may be dirt or dust on the disc. Clean the disc. See "Cleaning discs" on page 52. The disc may be defective. Try another disc. Make sure region codes for both the DVD and player match. See "Check for region code compatibility" page 5.
FM sound is distorted	Adjust antenna position to reduce interference.
Sound is distorted	 Make sure speaker cables are not damaged and the connections are secure. Reduce the output level from any external audio devices connected to the music center. Reduce the input level setting for the connected device in the system menu.
Picture is black and white or rolling	 Check the video cable connections. Check the Video Format setting and change to appropriate setting (NTSC or PAL). See "Video options" on page 47.
You forgot your password	Enter the password 2673 to access the parental controls and create a new password.

Customer service

For additional help in solving problems, contact Bose® Customer Service. Refer to the address list included in the carton.

Technical Information

Power rating

USA/Canada: 120V \sim 50/60Hz 300W International: 220-240V \sim 50/60Hz 300W Dual voltage: 115/230V \sim 50/60Hz 300W

Audio inputs

AUX - Left, Right (analog); D (digital)
CBL-SAT - L, R (analog); D (digital)

TV - L, R (analog); D (digital)

Optical - SPDIF digital, mapped to input

Audio outputs

Acoustimass® Module - SPDIF

Video inputs

C (composite) – NTSC or PAL format **S-Video**

Video outputs

C (composite) – NTSC or PAL format

S-Video

Component Y, Pb, Pr

Antennas

FM 75 Ω – external FM antenna **AM** – external AM antenna

Maximum ambient temperature

104°F (45°C)

Dimensions

Media center: 31/4"H x 133/4"W x 10"D

(8.3 cm x 34.9 cm x 25.4 cm)

Remote control: $1\frac{1}{8}$ "H x $2\frac{1}{2}$ "W x 9"D

(3.0 cm x 6.5 cm x 22.9 cm)

3•2•1 speakers: 31/2"H x 77/8"W x 51/4"D

(8.7 cm x 19.9 cm x 13.6 cm)

3•2•1 GS speakers: 4"H x 51/2"W x 21/2"D

(10.5 cm x 14 cm x 6.4 cm)

Acoustimass module: 141/2"H x 83/4"W x 191/8"D

(36.7 cm x 22.2 cm x 48.5 cm)

Weights

Media center: 6.7 lb (3.0 kg)

3•2•1 speakers: 2.7 lb (1.2 kg) each

GS speakers: 1 lb (.45 kg) each

Acoustimass module: 23.3 lb (10.6 kg)

Finish

Media center: polymer

Speakers: polymer

Acoustimass module: polymer

Cable box device codes

ABC	0003, 0008, 0014, 0007, 0013, 0047, 0011, 0017, 0001	General Instrument	0476, 0810, 0276, 0003, 0014, 0015, 0011, 0098	Philips	0013, 0069, 0211, 0290, 0619, 0060,
ADB	1063	GHZ	0078		0153, 0255, 0025, 0111, 0242
Ajinvision	1271	GMI	0057, 0015, 0797,	Pioneer	
Alcate	0896, 0897		0069		0533, 1021
Allegro	0315, 0153	Golden Channel	1063, 1110	Popular Mechanics	0400
Americast	0899	GoldStar	0144, 0040, 0838	Pulsar	0000
Antronix	0022	Goodmind	0797	PVP Stereo Visual	
Anvision	0211, 0111	Grundig		Matrix	
Archer	0797, 0153, 0022	Hamlin	0009, 0273, 0259, 0034, 0020	Quasar	
Belcor	0056	Hitachi		RadioShack	0315, 0303, 0883, 0015, 0797
Bell & Howell	0014	Hwalin		Rampage	•
Bell South	0899	HyperVision		RCA	
Bestlink	0303	Hytex		Recoton	0400
Birmingham Cable		IEEC		Regal	0279, 0273, 0020,
Communications	0276	Jasco		· ·	0259
British Telecom	0003, 0105	Jebsee		Regency	0002
Cable & Wireless	1068	Jerrold		Rembrandt	0070, 0011
Cable Star	0056	0011010	0003, 0012, 0014,	Runco	0000
Cabletenna	0022		0098, 0047, 0011, 0015	Sagem	0817
Cabletime	0448, 0377, 0271, 0665	Leon	0069, 0015	Samsung	0000, 0144, 0702, 0070, 0840, 0040
Cableview	0022	LG	0144, 0040, 0838, 0779	Scientific Atlanta	
Century	0153	Magnavox			0008, 0006, 0277, 0017
Citizen	0315, 0153	· ·		Seawoo	
Colour Voice	0025	Memorex MNET		Sharp	•
Comtec	0274			Signal	
Comtronics	0060, 0040	Motorola	1254, 1106	Signature	•
Contec	0019	Movie Time	0063, 0078	SL Marx	
Cryptovision	0600	Mr. Zap	1112	Sony	
Daehan	0778	MS	0015, 1018, 0303,	Sprucer	
Daeryung			0069	Starcom	
	0008, 0277	NET	0274	Otaroom	0047, 0015
Decsat		Noos		Stargate	0797, 0040, 0015
Director		Now		Starquest	0015
Eastern	* *	NSC	0063, 0070	Storm	1018
Electricord		NTL	1068	Supercable	0276
Emerson		Oak	0007, 0248, 0019	Sylvania	0001
Everquest		Ono	1068	Tadiran	0040
Filmnet	0443	Optimus	0021	Tae Kwang	0068
Focus	0400	Pace	0237, 1060, 1068	Taepyung	0678
France Telecom	0897, 0896, 0451	Pacific	0678	Taihan	0778
Funai	,	Pacific Bell		Tandy	0258
Garrard	0153	Panasonic	0000, 0008, 0107,	Teac	1018
GC Electronics	0056	Paragon	0040, 0021	Tele+1	0443
Gemini	0070, 0057, 0797, 0015, 0242	Paragon	0000	Teleview	0040
	3310, 0LTL			Telewest	1068

Cable box device codes

Texscan		TS	0003, 0303, 0255, 1018	Videoway	
Thomson		Tudi	0286	Viewmaster Viewstar	
Tocom	0012, 0013	Tusa			0060, 0211
TongKook	0840, 0777	TV86		Visionetics	
TopStone	1355	UBS		Westminster	,
Torx	0003	Unika United Artists	•	Zenith	
Toshiba		United Cable		Zentek	•
Trans PX	0276, 0153, 0315, 0303	Universal			

Satellite box device codes

ABsat	0832, 0123	Canal Satellite	0853	Echostar	2005, 1005, 2003, 0775, 1169, 0280,
Akai	0515	Canal+	0853		0453, 0610, 0853,
Alba		Chaparral	0216, 0053		1086, 0167, 0396, 0511, 1170, 0312,
	0515	CityCom	1176, 0818, 0115		2011, 0454, 0713,
Aldes	0288	Clark	0811		0871
AlphaStar	0772	CNT	0520	EIF	0674, 0417
Amstrad	0847, 0338, 0501, 0811, 0252, 0461,	Commlink	0288	Elta	0364
	0689, 1113, 0345,	Connexions	0396	Emanon	0421
	0675	Conrad	0607, 0115, 0809	Engel	0450, 1017
Ankaro	0288, 0713, 0220, 0519, 0369, 1094	Crossdigital	* *	Eurodec	0526
Anttron	0421, 0183	Crown		Eurostar	0679, 1026, 1025
Arcon	1043, 0834, 0368,	D-box		Expressvu	2003, 0775
AIOOII	1205	Dae Young	* *	Ferguson	
Armstrong	0243	Daeryung			0711
AST	0351, 0321	Digenius		Fidelity	
Aston	1129, 0142	DirecTV		Finlux	0397, 0108, 0455, 0414
Astra	0108	Direct v	2002, 0639, 1142,	Force NO AS	
Astro	0501, 0358, 0548,		0247, 0749, 1749, 0724, 0819, 1856,	Foxtel	
	0173, 0520		1076, 1109, 0099	Fracarro	
Audioton	0364	Dish Network	1005, 2005, 0775,		
Avalon	0396	System	2003, 1170, 2011	Freecom	•
Axis	0530, 0369, 0834	Dishpro	1005, 2005, 0775, 2003	Fresat	0885
Best	0369	Distratel		FTE	, ,
Blaupunkt	0173		•	Fuba	0369, 0417, 0172, 0414, 0396, 0421
Boca	0243, 0829, 0513	DMT		Funai	0338
Brain Wave	0332	DNT		G-Sat	0183
British Skv		DX Antenna			
Broadcasting	1175, 0847	Dynasat	0679	Galaxis	0656, 0834, 1111, 0364, 0833, 1101,
BT	0515, 0710, 0668				0288, 0813, 0863, 0283
Bush	0067, 0522			Galaxisat	0321
Cambridge	0515				
Canal Digital	0853			Gardiner	0010

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GE	0566	JVC		Next Level	0869
General Instrument	0869		0492, 0515, 1170, 0506, 2011, 0505	NextWave	0732
GOI	2003, 0775	Kabil	0737	Nikko	0713
Gold Box	0853	Kathrein		Nokia	0397, 0723, 1023, 0172, 0573, 0873,
GoldStar	0335		0442, 0622, 1224, 0173, 0358, 0553,		0108, 0455, 0751,
Gooding	0571		1057, 0123, 0331,		1127
Goodmans	1246	V10/+	0480	Now	
Gradiente	2004, 0887	KeyWest		Oceanic	
Grothusen	0335	Kosmos	•	OctalTV	•
Grundig		Kreiselmeyer		Orbit	
	0750, 1150, 0139, 0571, 0847	Kuang Yu		Orbitech	0501, 1100
HDT	1011, 1159	Kyostar		Origo	
Hinari	0183	L&S Electronic		Orion	
Hirschmann	0396, 0495, 0573,	LaSAT		Pace	1175, 0241, 0497, 0795, 0887, 0183,
	0173, 0398, 0502, 1085, 0397, 0501,	Lenco	•		0455, 0791, 0867,
	0882	Lennox			2004, 0067, 0336, 0720, 0847
Hitachi	0819, 0455, 0491,	LG		Palladium	0571
11	0489, 1250	Lifesat		Palsat	0501
Homecable	0238	Logix		Panarex	1159
Houston		Lorenzen		Panasat	0879, 0615
HTS	0775, 2003	Lupus		Panasonic	0247, 0701, 0500,
Hughes Network Systems	1142, 0749, 1749	Luxor			0847, 0340, 0739, 1104
Humax	0863, 0283, 1176,	Macab	•	Panda	
	1048	Magnavox	•	Pansat	
Hung Chang	0732	Manhattan	0520, 1017, 0455, 0765, 0592, 1083	Pantech	
Huth	0388, 0794, 0288, 0368, 0589, 0243,	Maspro		Paysat	
	0364, 0517, 0220,	•	0495	Philips	
	0346	Matsui	0571	1 milps	0724, 1076, 0722,
Hwalin	0885	Matsushita	0500, 0340		0099, 0133, 0571, 0853, 1118, 0455,
Hyundai		Mediamarkt	0243		0710, 0805, 0292,
IEEC		MediaSat	0853	Dharatuand	0667, 0750, 0898
Ikusi Allsat		Memorex	0724	Phonotrend	
Indovision	•	Metronic	0713, 0084, 1215	Pioneer	0662
Innova		Micronik	1003	Pixx	0552
Intertronic		Minerva	0571	Plasmatic	0442
Intervision	0592	Mitsubishi	0749, 0491	Praxis	1123
InVideo		Morgan's		Preisner	0132, 0513
IQ		Motorola	1103, 0243, 0829	Promax	0455
IQ Prism		Multichoice		Prosat	0288
IRTE	,		,	Proscan	0392, 2001, 0566
ISkyB	•	Muratto		ProVision	
ITT	0108, 0172	Muratto		Pyxis	
JiWon				Quadral	
Johansson		NEC	0508, 0507	RadioShack	•
JOK		Netsat	0099, 2004, 0887	Radix	0882, 0396, 1255,
JSR	0364	Neuhaus	0501, 0220		1113
		Neusat	0692, 0834		

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RCA	2001, 0392, 0566, 0855, 0143	Skymaster	0628, 1062, 0240, 0605, 0880, 0519,	Thorens	
Realistic	,		0713, 0288	Tonna	0668, 0346
RFT		SM Electronic	0713, 0240, 0157,	Topfield	1206
	,		1200	Toshiba	
Saba	0336, 0710	Smallear	1103	TDO	0486, 1285, 0082
Sabre	0455	Smart	0132	TPS	,
Sagem		Sony		Triad	,
Salora			0294, 0847, 0278, 0661	Triasat	0501, 0414
	•	Star	2004, 0887	Triax	0115
Samsung	0773, 1243	Star Choice	•	Twinner	0136
Sanyo	1219, 0493	Star Trak		UltimateTV	
SAT		Starland			2002
Satcom	0346, 0605			Uniden	0724, 0722, 0074, 0052, 0238, 0831
Satec	,	Strong	0354, 1088, 0132,	Unitor	
Satmaster			0879, 1159	Universum	
SatPartner		STS	0210	Victor	•
Sati aitilei	0692, 0335, 0520,	STVI	0417		•
	0332	Sunstar	0513, 0794	Visiosat	
Satplus	1009	Supernova	2004, 0887	Vortec	•
Satstation	1083	Tada	0368	VTech	•
Schneider	0805	Tae Kwang	0733	Winersat	,
Schwaiger		Tantec		Wisi	0638, 0173, 0372, 0455, 0351, 0406,
	1111	Techniland	0346		0690, 0321, 0396
Seemann	,	TechniSat		Xsat	0123
SEG	1087, 0742, 0421, 0369	Tooliiilout	1195, 0501, 1100	Yes	0887, 2004
Sharp		Telefunken	0421	Zehnder	
Siemens		Teleka	0243, 0613		0520, 1075, 0331, 0818
SKY	,	Telesat	0605	Zenith	
OK1	0847, 1175, 0887	Telestar		Zodiac	,
Sky Television	1014		0157		
Skylife	1255	Televisa	2004, 0887	Zwergnase	0794
•		Thomson			
			0711, 1046		

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AGB...... 0516

A-Mark		Aiwa	1914, 1910, 1916, 0701, 1915	Alba	0668, 0036, 0218, 0581, 0009, 0211, 0371, 0037, 0235
Acura		Akai	0516, 0708, 0218,	Albatron	,
Addison	0653, 0108		0448, 0696, 0208, 0361, 0602	Allorgan	0294
Admiral	0093, 0087, 0163	Akito	,	Ambassador	0177
Advent	0783, 1933, 0817, 0815	Akura	0264, 0218, 0493,	Amplivision	0400, 0217
Adventura	0046	Alaron	0358	Amstrad	0171, 0009, 0177, 0412, 0371, 0516,
Adyson	0217, 0032	, uai 011	0170, 0210		0037, 0354, 0433

Anom	0250 0000 0700	Duch	0026 0609 0219	Danasi	0027
Anam	0003, 0628	Bush	0294, 0363, 0519,	Dansai Dayton	
Anam National	0250, 0650, 0055		0009, 0668, 0211, 1900, 0282, 0355,	Daytron	
Anitech	0009		0374, 0581, 0037, 1037, 0272, 0349,	De Graaf	
AOC			0371, 0552	Do Gradi	0227
	0179, 0009, 0052, 0003, 0019, 0108,	Candle	0046, 0186, 0056	Decca	0249, 0244, 0516, 0072, 0272, 0037
	0185, 0018	Carrefour	0036	Denon	
Apex Digital	1943	Carver	0170	Digatron	
Arcam	•	Cascade	0009		
Archer		Cathay	0037	Dixi	•
ASA	•	CCE	0217, 0037	Dual Dual Tec	
Asuka	0218	Celebrity	0000		
Atlantic	0206	Centurion	0037	Dumont	
Audiosonic	0109, 0037	Century	0087	ECE	
Audiovox	0451, 0003	CGE		Elbe	
Autovox	0206, 0087, 0544, 0336	Obite Tel	0306, 0247	Electroband	,
Awa		Ching Tai		Electrohome	
Axion	•	Chun Yun	0000, 0009, 0700, 0003, 0179, 0033	Elin	•
Baird		Chung Hsin		Elite	•
Bang & Olufsen			0033	Elta	
_		Cimline	0009	Emerson	0178, 0171, 0185, 0361, 1911, 0038,
BarcoBasic Line	•	Cineral	0451		1944, 0179, 0282,
	•	Citizen			1909, 0019, 1929, 0087, 0280, 1905,
Baur	0512, 0554, 0037,	Clairtone	1928, 0046, 0280 0185	Erroo	1928, 0039, 0177
Decument	0505, 0544, 0010	Clarivox		Erres	•
Beaumark		Clatronic			
Beko	0714, 0486, 0370, 0715	Clayton	·	Etron	
Belcor	0019	Colt		Europhon	
Bell & Howell	0016	Concerto		Expert	
Beon	0037	Condor		Ferguson	0109, 0238, 0343, 0073, 0193, 0335,
Binatone		Contec	•		0037, 0190, 0324, 0560
Blaupunkt		Contec	0185, 0157	Fidelity	
•	0327, 0554, 0200, 0535	Continental Edison	0205, 0198, 0196,	ridelity	0193, 0363, 0361
Blue Sky	0218, 1037, 0668	Crosley		Finlandia	0359, 0346, 0208, 0363
Blue Star		Crown		Finlux	
Bondstec	0247	Olowii	0418, 0009, 0370	1 II II UX	0037, 0087, 0179,
Boots		CS Electronics	0414, 0216		0516, 0072, 0105, 0411
BPL	0282	CTC	0247	Firstar	0033, 0009
Brandt	0205, 0198, 0196,	Curtis Mathes	0451, 0093, 0145,	Firstline	•
	0335, 0109		0166, 0056, 1919, 0039, 0466, 0016	T HOURIO	0294, 0009, 0247, 0668
Brionvega		Cybertron	0218	Fisher	
Britannia	0216	Daewoo	0451, 0178, 0700,		0104, 0217, 0544,
Brockwood	0019		0019, 1921, 0039, 0170, 0634, 0009,	Era	0208, 0370
Broksonic	0003, 1929, 1911, 1938, 1905, 1935		1909, 0037, 0108,	Flint	
Bruns	0087		0374, 0628, 0003, 1902, 0032, 1928,	Forgestone	
BSR			0056, 0499	Formenti	0320
BTC		Dainichi	0218	Fortress	0093

Frontech	0264, 0448, 0247, 0414, 0163, 0363	Hisawa		Kendo	•
Fujitsu	, ,	Hinari		Kennedy	
•	0683, 0072	Hitachi	0178, 0145, 0019, 0563, 0036, 0196,	Kenwood	
Funai			0730, 0043, 0225,	Kingsley	
CPC	0294, 0264, 1904		1904, 0105, 0349, 0151, 0381, 0016,	Kioto	
GBC			0165, 0548, 0032, 0186, 0719, 0039,	Kloss	•
GE	0451, 0178, 0560, 1919, 0021, 0135,		0217, 1225, 0056,	Kneissel	0435, 0259
	1917, 0055, 0282, 1907, 1922, 0027		0306, 0363, 0009, 0163, 0481, 0027,	Kolin	0053, 0033, 0108, 0036
GEC	0043, 0217, 0037,		0179, 0578, 0038,	Konka	
GEO	0205, 0072, 0516		0198, 1037, 0044, 0227, 0109, 0356,	TOTING	1939, 0632, 0707,
Geloso	0009		0157, 0441		0628
General	0186, 0590	Hua Tun	0009	Korpel	
Genexxa	0218, 0163	Huanyu	•	Korting	
Gibralter	0019	Hypson	0282, 0264, 0037	Koyoda	
Gintai	0354	ICE	0371, 0264, 0217	KTV	0217, 0185, 0039, 0280
GoldStar	0178, 0019, 0039,	ICeS	0218	Lenco	
	0363, 0001, 0037, 0109, 0290, 1926,	Imperial		Leyco	
	0032, 0056, 0217,		0418, 0074, 0370, 0630	20,00	0072
	0377	Indiana	0037	LG	0178, 0001, 0032,
Goodmans	0037, 0217, 0371, 0634, 0036, 0179,	Ingelen	0163		0056, 0644, 1934, 0019, 0038, 0714,
	0343, 0499, 1909,	Inno Hit	0516, 0072		0003, 0037, 0108,
	0072, 0235, 0374, 1900	Innova	0037	Lianante 9 Thor	0700
Gorenje	0370	Interfunk	0361, 0247, 0163,	Liesenk & Tter	
GPM			0512, 0037	Lloyd's	
Gradiente		Intervision		Lloytron	
Graetz		ID	0264, 0217	Loewe	•
Granada	·	IR		Logik	
G. G	0359, 0072, 0208,	IRT		Luma	•
	0351, 0516, 0045, 0201, 0339, 0363	Isukai		Luxman	
Grandin	0610, 0282	ITC		Luxor	0356, 0349, 0363, 0194, 0361
Grundig	0706, 0191, 0487,	ITS		LXI	•
· ·	0556, 1935, 0070, 0205, 0554, 0037,	ITT	0548, 0163, 0544, 0361, 0351	M Electronic	
	0195, 0535, 0587	Janeil	0046		0057, 0109, 0346,
Grunpy	0179	JCB	0000		0037, 0105, 0217, 0480, 0009
Haier	0768	Jean	0003, 0179, 0009	Magnadyne	0102, 0544, 0087,
Hallmark	0178	Jensen	•	,	0516, 0247
Hanimex	1908	JVC		Magnafon	0516, 0102
Hankook	0178, 0019, 0628,		0190, 0606, 1923,	Magnasonic	1928, 1913
	0056		0094, 0371, 0683, 0192	Magnavox	0706, 0036, 0186, 1931, 0024, 0179,
Hanseatic	0361, 0556, 0320, 0544, 0037, 0428	Kaisui	0009, 0218, 0217,		0386, 1913, 0020,
Hantarex			0216, 0282		0096, 0187, 1904
Harley Davidson		Kamp		Magnin	
Havermy		Kapsch	•	Magnum	
HCM		Karcher		Majestic	
Hello Kitty	• •	Kathrein		Manesth	0217, 0320, 0264, 0235
Hinari	0009, 0179, 0037,	Kawasho	0216	Marantz	
· III (α) · · · · · · · · · · · · · · · · · · ·	0036, 0218	Kaypani	0052	Marelli	
					5567

Netsat...... 0037

Mark	0037	Newave	0093, 0178, 0009	Philco	
Matsui		Nicam	0544		0247, 1911, 0032, 0074, 0096, 0186,
	0011, 0443, 0037, 0544, 0208, 0235,	Nicamagic	0216		0628, 0020, 0056, 0087, 0552, 0019,
	0354, 0009, 0371, 0036, 0516, 0177,	Nikkai			0037
	0217, 0294, 0363,		0037, 0218, 0035, 0216, 0337	Philex	0351
	0035, 0487, 0072, 0579	Nikko	0178	Philips	
Matsushita	0250, 0650	Nobliko	0102		0043, 0108, 0187, 0012, 0554, 0020,
McMichael	0043	Nokia			0037, 0087, 0186, 0374, 0019, 0032,
Mediator	0037, 0012		0473, 0606, 0361, 0548		0056, 0193, 0013, 0556
Medion	0668, 1037	Nordmende	0198, 0196, 0560,	Phoenix	0087
Megatron	0178, 0145, 0003		0109, 0343	Phonola	
MEI	0185	Noshi		T HOHOIG	0037
Memorex		Oceanic		Pilot	0019, 0039
	1927, 0009, 0179, 1911, 1926, 1037,	Onking		Pioneer	
	1924, 0016	Onwa		Polytron	0038, 0163
Memphis	0337	Optimus	1913, 0650, 1927	Portland	
Mercury	0001	Optonica	0093, 0165	Prandoni-Prince	•
Metz	0087, 0388, 0367, 0535, 0275, 0447	Orion		Prima	
MGA	0178, 0019, 1907		0443, 0655, 1929, 0177, 0294, 0355,	1 11110	1933
Midland	0039, 0032, 0135		0544, 1911, 0037, 0235, 0321, 0516	Princeton	0700
Minerva		Osaki		Profex	0009, 0363, 0361
Minalia	0535	Oddramm	0217, 0412, 0072,	Proline	0321
Minoka		000	0264	Proscan	1922
Minutz Mirror		Oso		Protech	0552, 0037, 0247, 0418, 0009, 0217,
Mitsubishi		Osume Otto Versand			0337, 0668, 0102,
IVIII SUDISIII	0381, 0019, 1917,	Otto versariu	0552, 0036, 0217,	Droton	0264 0178, 0003, 0052,
	0056, 0108, 0201, 0358, 0535, 0036,		0349, 0535, 0556, 0010, 0191, 0343,	Proton	0644, 0001, 0039,
	0179, 0354, 0512, 0033, 0087		0512, 0554	D .	0466, 0009
Mivar	0291, 0609, 0290,	Palladium		Pulsar	0019
	0516, 0216, 0292	Panama	•	Pye	
Monivision	0700	Panasonic	0250, 1930, 0126, 1947, 0226, 0340,	Quasar	0165, 1919, 0055
Motorola	•		1650, 1927, 0055, 1946, 0214, 0274,	Quelle	
MTC	0019, 0216, 0185, 0512, 0056, 0349		0650, 1924, 0037,		0070, 0104, 0327, 0505, 0544, 0037,
Multitech	0009, 0217, 0216,		1941, 0163, 0367, 1919		0084, 0306, 0361, 0535, 0011, 0554,
	0102, 0363	Pathe Cinema	0320, 0238, 0216,		0074, 0200, 0328
Myryad	0556		0552	Questa	0036
NAD	•	Pathe Marconi	•	R-Line	0037
National		Pausa		Radiola	•
NEC	0178, 0019, 0056, 0455, 0009, 0046,	Penney	1919, 0003, 0021,	Radiomarelli	•
	0170, 0381, 0036, 0165, 0186, 0704		0039, 1907, 0019, 0032, 1926, 0018	RadioShack	0178, 0032, 0165, 1920, 0019, 0056,
Neckermann	0191, 0505, 0087,	Perdio	0320		1904, 0039
1100NOTHAIII	0363, 0556, 0037,	Phase		Rank Arena	0036
NEI	0349, 0554			RBM	0070
NEI	0037, 0337				
Nesco	0414, 0179				

RCA		Scott	0178, 0019, 0179	Sunkai	0355, 0321, 0294
	0135, 1917, 1948, 0038, 1907, 1922,	Sears		SuperTech	0216
	0019, 1919		0179, 0146, 1926, 0056, 1904	Supra	0056
Realistic	0178, 0019, 0056, 0039, 0032, 0165	SEG	•	Supre-Macy	0046
Dadiffusion	, ,		0217, 0668	Supreme	0000
Rediffusion		SEI		Susumu	0218
Revox			0010, 0177, 0544, 0102	Sylvania	
Rex		Seleco		O markets	1944, 0096, 1931
1167	0259	_	0259	Symphonic	
RFT	0428, 0087	Sentra		Synco	0178, 0036
Rhapsody	0216, 0185	Sharp	0165, 0650, 1917,	Sysline	0037
Roadstar			0036, 0157, 0386, 1193, 0032, 0256	T + A	0447
Devis	0218	Shen Ying		Tacico	0178, 0009, 0179
Rowa	,	Sheng Chia		Tai Yi	0009
Saba	0335, 0163, 0205,	Onlong Onla	0033	Tandy	
	0109, 0198	Shogun	0019		0218, 0072, 0217, 0039
Saccs	0238	Shorai	0294	Tashiko	0043, 0363, 0036,
Sagem	0610	Siarem	0087, 0516, 0102		0359, 0033, 0217, 0650
Saisho	0009, 0177, 0264, 0544, 0033, 0235,	Siemens		Tatung	
	0516, 0011, 0211,		0037, 0195, 0328, 0191, 0327, 0554	Tatung	0055, 0244, 0003,
Colore	0354	Signature	0016		0037, 0217, 0516, 0036
Salora	0361, 0194, 0359,	Silver	0036	Teac	
	0548, 0163	Simpson	0187, 0186		0037, 1932, 0412,
Sambers	•	Singer	0087		0544, 1437, 0009, 1913, 0282, 0455,
Sampo	0093, 0178, 0171, 0700, 0036, 0650,	Sinudyne			0698, 1037, 1909, 0264, 1949, 0418,
	0032, 0052, 0009,		0294, 0087, 0235, 0544, 0010		0668
0	0039	Skantic	•	Tec	0247, 0217, 0552
Samsung	0178, 0644, 0032, 0056, 0217, 0370,	SKY		Technema	0320
	0618, 0019, 0039, 0179, 0290, 0587,	Skysonic		Technics	0250, 0650
	0009, 1903, 0037,	Skyworth		Technol Ace	0179
0	0264, 0556	Solavox		Techwood	0056, 0003
Samsux		Sonitron		Teco	0093, 0178, 0264, 0036, 0218, 0653,
Sandra		Sonoko	0037, 0009		0009, 0218, 0003,
Sansei		Sonolor	•	Teknika	
Sansui	1911, 1904	Sontec	·		0186, 0019, 0179
Sanyo	0157, 0280, 1907,	Sony	0000, 0010, 0080,	Teleavia	•
	0045, 0146, 0208, 0381, 0036, 0104,	,	0650, 1505, 1925, 0036, 0505, 1010,	Telefunken	0084, 0262, 0343, 0625, 0074, 0109,
	0159, 0339, 0011,		1904, 0011, 0111,		0335, 0498, 0056,
CDD	0072		0651, 1651	Tolomoiotor	0101, 0306, 0471
SBR	0037, 0013, 0193, 0012, 0043	Soundesign		Telemeister	
Schaub Lorenz	0361	Soundwave	•	Teletech	
Schneider		Sowa		Teleton	0217, 0206, 0363
	0057, 0303, 0394, 1137, 0037, 0247,	Spectricon		Tensai	0294, 0218, 0320
	0371, 0668, 0013	Squareview		Tera	0466
Scimitsu	0019	SSS		Texet	0216, 0218
Scotch	0178	Standard		Thomas	1904
		Stern	0259, 0206, 0163		

Thomson		Triumph	0516, 0243, 0177	Visorex	0432
	0205, 0399, 0198, 0349, 0625, 0196	Tuntex	0009	Voxson	0087, 0163
Thorn	0499, 0535, 0037,	Uher	0303, 0206, 0320	Waltham	0356, 0217
	0084, 0192, 0361, 0512, 0035, 0074,	Ultra	0192	Wards	
	0190, 0343, 0505,	Ultravox	0102, 0351		0056, 0111, 0179, 0019, 0027, 0096,
	0072, 0104, 0193	Universal	0027		0016, 0021, 0080
Thorn-Ferguson	0343	Universum		Watson	0037, 0320
TMK	0178, 0177, 0056		0105, 0370, 0535, 0104, 0346, 0492,	Watt Radio	0544, 0102, 0552
Tomashi	0282		1901, 0074, 0264	Wega	0087, 0036
Toshiba	0644, 1508, 1936, 0035, 0243, 0618,	Vestel	0037	White Westinghouse	
	0718, 1935, 0070,	Victor			0037, 0320
	0508, 0650, 1918,		0650, 0653	Yamaha	0019
	1945, 0036, 0381	Videosat	0247	Yapshe	0250
Tosonic	0185	Videotechnic	0217	Yoko	0264, 0217, 0037
Totevision	0039	Vidtech	0178, 0036, 0019	Zanussi	0363, 0206
Towada	0552	Viking	0046	Zenith	0178, 0016, 1909,
Transonic	0712, 0698	Vision	0320		1904, 1929, 1911
Trical	0157			Zonda	0003

VCR device codes

ABS	1972	Basic Line	0072, 0278, 0020	Crown	0072, 0278, 0020
Admiral	0048, 0209	Beaumark	0240	Curtis Mathes	
Adventura	0000	Bell & Howell	0104	0.1	0041, 1035
Aiko	0278	Blaupunkt		Cybernex	
Aiwa			0226, 0195	CyberPower	
	0348, 0687, 0307, 0479	Brandt		Cyrus	
Akai		Brandt Electronic	0041	Daewoo	0045, 0104, 0278, 0642, 0637, 0020,
Akiba		Broksonic	0184, 0121, 0209, 0002, 0479, 0348,		1278
			1479	Dansai	0072
Alba	0352, 0315, 0293,	Bush	0209, 0072, 0278,	Daytron	0020
	0020		0352, 0293	De Graaf	0042, 0166
Alienware	1972	Calix	0037	Decca	0081, 0000
Ambassador	0020	Canon	0035	Denon	0042
America Action	0278	Capehart	0020	Dual	0041
American High	0035	Carver	0081	Dumont	
Amstrad	0000	Catron	0020	Dvnatech	<i>.</i>
Anam		CCE	0072, 0278	Elbe	
	0278, 0226	CGE	0000	Elcatech	
Anam National	0162, 0454, 0226, 1562	Cimline	0072	Electrohome	
Anitech		Cineral	0278		
ASA		Citizen	0037, 0278, 1278	Electrophonic	
Asha	,	Clatronic	0020	Emerex	
Asuka		Colt	0072	Emerson	0035, 0037, 0184, 0240, 0045, 0000,
		Combitech	0352		0121, 0043, 0209,
Audiovox	,	Condor			0002, 0278, 1278, 0637, 0479, 1479
Baird	· · ·	Craig		ESC	0240, 0278
Bang & Olufsen	0499	Orang	0072		-, -

Ferguson	0041, 0493, 0321, 0320	ITT	0240, 0104, 0041, 0384, 0106	Minerva Minolta	
Fidelity	0000	ITV	0037, 0278	Mitsubishi	0081, 0067, 0043,
Finlandia	0081, 0104	Jensen	0041		0041, 0807
Finlux	0081, 0000, 0042, 0104	JVC	0045, 0067, 0041, 0384, 0206, 0008	Motorola	•
Firstline		Kaisui	0072	Multitech	•
	0209, 0072	KEC	0037, 0278	Murphy	,
Fisher	•	Kendo	0209, 0106	Myryad	
Frontech		Kenwood		NAD	
Fuji	•		0384	National	
Fujitsu	•	KLH			
Funai		Kodak	,	NEC	0104, 0067, 0041,
Garrard		Kolin	0043, 0041		0038, 0008, 0206, 0040
Gateway	1972	Korpel	0072	Neckermann	
GE	0060, 0035, 0240, 1060, 0226, 1035,	Lenco	0278	Nesco	
	0807	Leyco	0072	Newave	
GEC	0081	LG	0037, 0045, 0042, 0209, 0038, 0040	Nikko	
General	0045, 0020	Lloudio			
Go Video	0432	Lloyd's		Nikon	
GoldHand	0072	Loewe	0162, 0037, 0081, 0454, 0004, 1562	Noblex	
GoldStar	0037, 0209, 0038, 0225, 1237, 0226	Logik	0240, 0072, 0004	Nokia	0240, 0104, 0041, 0106
Goodmans	0037, 0000, 0072,	Luxor		Nordmende	, , ,
Goodmans	0278, 0062, 0637,	LXI	0062, 0106	Northgate	0494, 0384
	0020	M Electronic		Oceanic	
Gradiente	•	Magnasonic	•		•
Graetz	·	•		Okano	•
Granada	0081, 0104	Magnavox	0000, 0149, 1781	Olympus	
Grandin	0037, 0000, 0072	Magnin	0240	Optimus	0048, 0104, 0454,
Grundig	0081, 0072, 0195, 0347, 0293, 0226,	Manesth	0045, 0072		0432
	0034	Marantz	0035, 0081, 0062	Optonica	0062
Hanseatic	0037	Marta	0037	Orion	0184, 0121, 0209, 0002, 0348, 1479,
Harley Davidson	0000	Matsui	0209, 0348, 0004,		0004, 0479, 0352
Harman/Kardon	0081, 0038		0352	Osaki	0037, 0000, 0072
Harwood	0072	Matsushita	0035, 0162, 0227, 0226	Otto Versand	0081
HCM	0072, 0293	Media Center PC		Palladium	0037, 0041, 0072
Hewlett Packard	1972	Medion		Panasonic	
HI-Q	0047	MEI			0225, 0454, 0836, 1562, 0227, 0616,
Hinari					0226, 0459, 1035,
	0352, 0004	Memorex	0035, 0162, 0037, 0048, 0039, 0047,	Dalle Manage	1662
Hitachi	0037, 0240, 0000, 0042, 0041, 0004,		0240, 0000, 0104, 0209, 0307, 0479,	Pathe Marconi	
	0166		0454, 0348, 1237	Penney	0035, 0037, 0240, 0042, 0038, 1237,
Hughes Network	00.40	Memphis	0072		0040, 1035
Systems		Metz		Pentax	0042
Hypson			1562, 0227, 0459, 0195, 0454	Perdio	0000
iBUYPOWER		MGA	•	Philco	
Imperial		MGN Technology	•	Dhiling	0038, 0479, 0226
Ingersol		Microsoft		Philips	0226, 0618, 0062,
Interfunk	0081	Mind			0384
				Phonola	0081

Pilot	0037	Scott	0184, 0045, 0121, 0043	Teleavia	•
Pioneer	0081, 0042, 0067, 0206	Sears	0035, 0037, 0047,	Telefunken	0041, 0384, 0321, 0494, 0320, 0493
Polk Audio	0081		0000, 0042, 0104, 1237	Tenosal	0072
Portland	0020	SEG		Tensai	0000
Profitronic	0240	SEI		Thomas	0000
Proline	0000, 0293	Seleco	,	Thomson	
Proscan	0060, 1060	Semp	0045		0321, 0494, 0320, 0493, 0722, 0384,
Protec	0072	Sentra	0020		0528
Pulsar	0039	Sharp		Thorn	0104, 0041
Pye	0081	·	0807	TMK	0240
Quasar		Shintom	0104, 0072	Toshiba	0081, 0045, 0067, 0043, 0041, 0845,
	0454	Shogun	0240		0008, 0384, 1145
Quelle	0081	Shorai	0004	Totevision	0037, 0240
Radiola	0081	Siemens		Touch	1972
RadioShack		Silva	0195	Uher	0240
Radix				Unitech	0240
Randex	0037	Singer	,	Universum	0037, 0081, 0240,
RCA	0060, 0035, 0240, 0000, 0042, 0149, 0106, 1035, 0226,	Sinudyne	•		0000, 0106, 0195
		Solavox		Vector	0045
Deslistia	0880, 0807, 1060	Sonic Blue	•	Vector Research	0038, 0040
Realistic	0035, 0037, 0048, 0047, 0000, 0104,	Sonolor		Victor	0067, 0041, 0008, 0384
	0062	Sontec		Video Concepts	
Reoc	0348	Sony	0000, 0636, 1232,	Videomagic	
Rex	0041, 0384		0034, 1032	Videosonic	
Ricoh	0034	STS	0042	Viewsonic	
Roadstar	0037, 0240, 0072, 0278	Sunkai	0348	Villain	
Runco	0039	Sunstar	0000		0060, 0035, 0048,
Saba	0041, 0320, 0494,	Suntronic	0000	Wards	0047, 0081, 0240,
Saba	0206, 0384, 0321	Sylvania	0035, 0081, 0000, 0043, 1781		0000, 0042, 0072, 0149, 0062
Saisho	0209, 0004	Symphonic	0000	Wharfedale	0615
Salora	0043, 0106	Tagar Systems	1972	White Westinghouse	0209, 0072, 0637
Sampo	0037, 0048	Tandy	0000, 0104	XR-1000	0035, 0000, 0072
Samsung	0240, 0045, 1014, 0432	Tashiko	0037, 0000	Yamaha	0041, 0038
Sanky	0048, 0039	Tatung	0081, 0045, 0000,	Yamishi	0072
Sansui	0000, 0067, 0209,	_	0067, 0041, 0008	Yokan	0072
	0041, 0479, 1479	Teac	0000, 0041, 0278, 0642, 0637, 0307	Yoko	0240, 0020
Sanyo	0047, 0240, 0104	Tec	0020	Zenith	
Saville	0352	Technics	0035, 0162, 0226		0209, 1479, 0637, 0034, 0479
SBR	0081	Teco	0035, 0037, 0048,	ZT Group	1972
Schaub Lorenz	0000, 0104, 0041		0041, 0038, 0040		
O . I	0004 0000 0070	T. 1 . 1	0005 0007 0000		

Teknika...... 0035, 0037, 0000

Digital video recorder device codes

ReplayTV	0614, 0616
Tivo	0636, 0618, 0722

Schneider...... 0081, 0000, 0072

